COCHISE COLLEGE

Catalog
2015-2016

Welcome to Cochise College

Dear Students,

I am pleased you have chosen to enroll at Cochise College, and I'm sure you will be, too.

Now entering its 51st year, the college is focused on helping you achieve your goals in a timely manner. Cochise College faculty and staff are knowledgeable and approachable. They all want you to succeed. What's more, numerous opportunities exist for you to enhance your learning experience.

Mentoring and tutoring programs provide assistance with everything from classes to financial literacy. Campus organizations engage students interested in leadership, fun, and specific activities or projects. Opportunities exist to apply for campus jobs, awards programs, or other college ambassador roles. A variety of universities visit our campuses to make you aware of the opportunities they provide.

We wish you the very best as you pursue your future and hope you enjoy your time at Cochise, a college where individuals matter and dreams are realized.

Sincerely,

J.D. Rottweiler, Ph.D.

College President

Cochise College

Douglas Campus
4190 West Highway 80
Douglas, AZ 85607-6190
(520) 364-7943

Sierra Vista Campus
901 North Colombo Avenue
Sierra Vista, AZ 85635-2317
(520) 515-0500

Fort Huachuca
Army Education Center
Building 52104
Fort Huachuca, AZ 85613-6000
(520) 533-2391

Willcox Center
470 N. Bisbee Ave.
Willcox, Arizona 85643-1500
(520) 384-4502

Benson Center
1025 State Route 90
Benson, Arizona 85602-6501
(520) 586-1981

Santa Cruz Center
2021 N. Grand Ave.
Nogales, Arizona 85621
(520) 287-5583

Virtual Campus
Fort Huachuca Center
Building 67601
Fort Huachuca, AZ 85613
(520) 335-1596

Douglas Prison
ASPC-Douglas
6911 North BDI Boulevard
Douglas, AZ 85607
(520) 364-7521, Extension 34130

Governing Board
Mr. David Di Peso, Chair
Dr. John Eaton, Secretary
Mr. Donald Hudgins, Member
Mrs. Jane Carol Strain, Member
Mr. Dennis L. Nelson, Member

President
J.D. Rottweiler, Ph.D.

COCHISE COLLEGE

Toll Free: (800) 966-7943

www.cochise.edu

Regular Hours: 8 a.m. - 4:30 p.m. Monday - Friday

Summer Hours: May 18 – Aug. 6, 2015, 7 a.m. – 5 p.m. Monday - Thursday

All information, including statements on tuition, fees, course offerings, admission, and graduation requirements, is subject to change without notice, obligation or liability.

Published: May 2015

Cochise College is an equal-opportunity, affirmative-action employer and educational institution committed to excellence through diversity.

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Telephone Directory

The area code for all telephone numbers is 520 and the toll-free number is (800) 966-7943.

	Douglas / Sierra Vista
Admissions/Registration	417-4046 / 515-5336
Adult Education	439-6836 / 515-5456
Advising/Counseling	417-4038 / 515-5483
Art Department Chair	417-4025 / 515-3673
Athletics	417-4095
Aviation	417-4092 or 417-4114
Automotive Technology	335-1449 or 224-5129
Ayuda en Espanol	417-4143 / 515-8755
Bookstore (Barnes & Noble)	364-9294 / 458-0262
Business Department Chair	417-4017 / 515-5330
Cafeteria (A'viands)	417-4089 / 515-5352
Cashier/Business Office	417-4076 / 515-5416
Center for Economic Research	
Center for Lifelong Learning	
Center for Teacher Education	417-4060 / 515-3695
Computer Labs	417-4031 / 515-5326
Dean, Business & Technology	
Dean, Extended Learning and Work-force Development	
Dean, Liberal Arts and Behavioral Science	
Dean, Math, Sciences and Health Sciences	
Dean, Student Services	417-4774 / 515-5329
Disability Services	417-4023 / 515-5337
Early Childhood Education	417-4060 / 515-3695
Engineering Department Chair	
Financial Aid	417-4045 / 515-5417
Foundation/Scholarships	
GED/High School Equivalency	439-6836 / 515-5456
Health Sciences Department	515-8750 / 515-8747
Housing/Student Life	417-4062 / 4115
Human Resources	
Information Technology	
International Student Office	417-4038 / 515-5399
Interpreter Coordinator	
K-12 Outreach	
Library & Instructional Media	417-4082 / 515-5320
Math Department Chair	417-4078 / 515-5442
Math Lab	417-4010 / 515-5342
Mail Room	417-4026 / 515-3614
Maintenance Department	417-4001 / 515-5453
Military Programs	
Nursing/Allied Health	515-5309 / 515-8744
Occupational Health and Safety	
One Stop	417-4046 / 4005
President's Office	
Registration	417-4046 / 515-5336
Science Department Chair	417-4716 / 515-3632
Security	417-4022 / 515-5470
Small Business Development	
Student Development Center	417-4038 / 515-5483
Student Government	417-4115 / 452-2618
Student Union	417-4472 / 452-2618
Tech Prep	
Testing Center	439-6825 / 515-5447

	Districtwide
Transcripts (outgoing)	515-5486
Transcripts (evaluations)	515-5492
TRiO/Student Support Services	515-5418
Tutoring Services	335-1884
Veterans Affairs	417-4060 / 515-3696
Writing Lab	417-4054 / 515-5380
	227-9302 / 417-4050
	515-3633
	417-4100
	515-5309 / 515-8744
	515-3623
	515-8755
	515-4502
	515-5363 / 515-5439
	533-2391 / 533-2395
	515-5455
	515-5401
	800-593-9597
	249-1959 / 249-1957
	515-5478
	515-5347

	Douglas / Sierra Vista
Transcripts (outgoing)	417-4005 / 515-5351
Transcripts (evaluations)	
TRiO/Student Support Services	417-4027 / 4708
Tutoring Services	417-4010 / 515-5342
Veterans Affairs	800-593-9567
Writing Lab	417-4402 / 515-5342

Benson Center	586-1981
Douglas Campus	364-7943
Fort Huachuca Center	533-2391 / 533-2395
Santa Cruz Center	287-5583
Sierra Vista Campus	515-5300 / 515-0500
Virtual Campus	335-1596 / 335-8412
Willcox Center	384-4502

Academic Calendar 2015-2016

SUMMER/FALL SEMESTER 2015

Summer 2015 Academic Calendar

Summer business hours	May 18 - Aug. 6
Last day to apply for August graduation	July 31
Eight-Week Session:	*May 26 - July 16*
Last day to add classes (the day before the class begins)	May 25
Last day to change to withdraw or audit status	July 9
Grades due by noon	July 20
First Five-Week Session:	*May 26 - June 25*
Last day to add classes (the day before the class begins)	May 25
Last day to change to withdraw or audit status	June 18
Grades due by noon	June 29
Second Five-Week Session:	*July 1 - Aug. 4*
Last day to add classes (the day before the class begins)	June 30
Last day to withdraw or change to audit status	July 30
Grades due by noon	August 7
Financial Aid:	
Summer freeze date* & disbursement date	June 4
Last day to accept summer financial aid applications	June 15
Second Five-Week freeze date* & disbursement date	July 9
AVT 1, 2, PFT 1, UAS 1 freeze date*	August 4
AVT 1, 2, PFT 1, UAS 1 disbursement date	August 5
* You can't add classes after this date that will be paid by financial aid.	
Holidays (no classes):	
Memorial Day	May 25
Independence Day (observed)	July 2

Fall 2015 Academic Calendar

Convocation (offices closed)	August 10
Saturday Registration	August 15
Residence Halls open	Aug. 15 - Dec. 18
Spring web registration begins	November 1
Spring open registration begins	November 9
Last day to apply for December graduation	December 18
16-Week Semester:	*Aug. 17 - Dec. 14*
Last day to add classes (the day before the class begins)	August 16
Last day to withdraw or change to audit status	December 3
Finals (including Saturday)	Dec. 8 - 14
Grades due by noon	December 17
First Eight-Week Session:	*Aug. 17 - Oct. 9*
Last day to add classes (the day before the class begins)	August 16
Last day to withdraw or change to audit status	October 2
Grades due by noon	October 13
Second Eight-Week Session:	*Oct. 14 - Dec. 14*
Last day to add classes (the day before the class begins)	October 13
Last day to withdraw or change to audit status	December 9
Grades due by noon	December 17
Financial Aid:	
16-week & First Eight-Week freeze date*	August 25
16-week & First Eight-Week disbursement date	August 26
PFT 2, UAS 2 freeze date*	October 14
PFT 2, UAS 2 disbursement date	October 15
Second Eight-Week freeze date*	October 21
Second Eight-Week disbursement date	October 22
* You can't add classes after this date that will be paid by financial aid.	
Holidays (no classes):	
Labor Day	September 7
Columbus Day	October 12
Veterans Day	November 11
Thanksgiving recess	Nov. 26 - 29

Winter break (all staff)	Dec. 21 - Jan. 3

Spring Semester 2016

Spring 2016 Academic Calendar

Saturday Registration	January 9
Residence Halls open	Jan. 9 - May 13
Summer/Fall web registration begins	April 18
Summer/Fall open registration begins	April 25
Last day to apply for May graduation	May 13
Commencement	May 13
16-Week Semester:	*Jan. 11 - May 9*
Last day to add classes (the day before the class begins)	January 10
Last day to withdraw or change to audit status	April 28
Finals (including Saturday)	May 3 - 9
Grades due by noon	May 12
First Eight-Week Session:	*Jan. 11 - March 4*
Last day to add classes (the day before the class begins)	January 10
Last day to withdraw or change to audit status	February 26
Grades due by noon	March 9
Second Eight-Week Session:	*March 14 - May 9*
Last day to add classes (the day before the class begins)	March 13
Last day to withdraw or change to audit status	May 4
Grades due by noon	May 12
Financial Aid:	
16-Week & First Eight-Week & AVT 3, 4, PFT 3, UAS 3 freeze date*	January 20
16-Week & First Eight-Week & AVT 3, 4, PFT 3, UAS 3 disbursement date	January 21
Second Eight-Week Session freeze date*	March 22
Second Eight-Week Session disbursement date	March 23
PFT 4, UAS 4 freeze date*	April 6
PFT 4, UAS 4 disbursement date	April 7
* You can't add classes after this date that will be paid by financial aid.	
Holidays (no classes):	
Martin Luther King Day	January 18
Presidents' Day	February 15
Spring Break	March 7 - 13

General Information

Cochise College History

Cochise College opened its doors in 1964 as one of the first community colleges in Arizona. It is located in an area rich in history and cultural diversity and has come a long way from its humble beginnings, when the administration offices were housed in the Gadsden Hotel in Douglas.

From the first semester, the college has been committed to serving citizens throughout the county. In October 2003, the college extended its service area to neighboring Santa Cruz County through an agreement with the Santa Cruz County Board of Supervisors. Cochise College is Arizona's largest rural community college, serving approximately 15,000 students annually.

The establishment of the college can be attributed to the efforts of the dedicated citizens of Cochise County, who voted in 1961 to create a community college district. A 1962 bond election resulted in the construction of the Douglas Campus, a 540-acre facility featuring unique architecture and panoramic views of the Mule and Chiricahua Mountains, as well as neighboring Sonora, Mexico.

The growth of population at Fort Huachuca and Sierra Vista and the increased interest in higher education created a need for a second campus in the western part of the county. The campus in Sierra Vista evolved from a handful of temporary buildings at Buena High School in the early 1970s to the full-fledged separate campus that opened its doors to classes in 1978 at its present location on North Colombo Avenue. In partnership with Fort Huachuca, Cochise College also occupies a facility on post, providing classes and support services to active military and community-based residents.

The Willcox Center, opened in 2010 on Willcox Unified School District property in a historic ranching and farming area in northeastern Cochise County, offers classes to residents of the area under the supervision of Extended Learning and Workforce Development. The Benson Center, which opened in the fall of 2000, is located in the northwestern part of Cochise County. These centers provide a variety of programs and services throughout the region.

The development of community-directed college programs and services has included the Center for Lifelong Learning, the Small Business Development Center, the Virtual Campus, the Correctional Education Division, Adult Education, and the Center for Economic Research.

The college has experienced growth and development in many ways over the last 50 years. As Cochise College expanded its partnership with the region's largest employer, Fort Huachuca, it has experienced significant growth in the number of students enrolled and credit hours taken by students. The college has increased its offering of programs while expanding partnerships with local K-12, university and industry partners, such as health care providers. Cochise College has a rich array of opportunities for students of all ages who visit its campuses and centers for education, training, or enjoyment, or to find similar opportunities online.

In recent years, the college has put significant resources toward facility renewal projects across the district. On both its Douglas and Sierra Vista campuses, new construction coupled with major renovations reflects space more appropriate to meeting the needs of the 21st-century learner and teacher. In addition, the college has made major technology investments in its classrooms, faculty and support areas.

Cochise College is on the move as it continues its journey as a learning community. This direction focuses on teaching and learning, access and diversity, and the use of technology and innovative instruction, including online classes, interactive television/distance learning course delivery, collaborative learning classes, interactive webcast, and blended learning delivery.

Accreditation and Affiliation

Cochise College is accredited by the Higher Learning Commission of the North Central Association. In 2006, the college received the maximum accreditation of 10 years; the next re-accreditation visit will be in 2015-2016. The college holds memberships in the Council of North Central Two-Year Colleges, the American Association of Community Colleges, the Hispanic Association of Colleges and Universities (HACU) and the Association of Community College Trustees.

The Higher Learning Commission of the North Central Association
30 N. LaSalle Street, Suite 2400
Chicago, IL 60602-2504
(800) 621-7440; (312) 263-0456
Fax: (312) 263-7462
www.ncahlc.org

The nursing program is accredited by the Arizona State Board of Nursing and the Accreditation Commission for Education in Nursing.

Accreditation Commission for Education in Nursing
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326
(404) 975-5000
Fax: (404) 975-5020
www.acenursing.org

Arizona State Board of Nursing
4747 N. 7th St., Suite 200
Phoenix, AZ 85014
(602) 889-5150
Fax: (602) 889-5155
www.azbn.gov

The Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Committee on Accreditation of Educa-

tional Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
(727) 210-2350
www.caahep.org

The Paramedicine and Emergency Medical Technology programs are certified through Arizona Department of Health Services, Emergency Medical Services and Trauma Division.

The Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC).

Commission on Accreditation for Respiratory Care
1248 Harwood Road
Bedford, TX 76021-4244
(814) 283-2835
www.CoARC.com

Cochise College holds a Federal Aviation Administration operating certificate issued under 14 CFR Part 141 for its approved courses offered by the Professional Pilot Program.

GOVERNANCE

The college district is governed by a five-member governing board elected from precincts in Cochise County. The college is financed by legislative appropriation, a countywide tax levy and student tuition.

MISSION

Cochise College provides accessible educational opportunities that are responsive to a diverse population and lead to constructive citizenship, meaningful careers and lifelong learning.

PHILOSOPHY

Cochise College provides post-secondary education and educational support services to students interested in and capable of benefiting from programs of higher education. The college prepares students for a successful life beyond the college by promoting the principles of general education as set forth in the college's general education mission statement. Students should leave Cochise College with varied learning experiences and an understanding of the diversity of life.

The college makes students aware of their ethical responsibilities to the community, the environment and their fellow human beings.

The college provides educational opportunities, resources and programs tailored to changing social, economic and technological needs.

VISION

Cochise College strives to be a learning community held in high esteem by members of its communities, providing high-quality learning opportunities for its citizens.

A learning community

- Places its highest priority, resources and energy on learning.
- Creates an environment and experiences, real or virtual, that encourage students to be active members of the learning community.
- Makes learning possible not only in the classroom but outside, through a myriad of activities and experiences, using any number of tools to enhance learning.
- Extends learning not only to students but to all members of the college community so that a feeling of collegiality abounds.
- Empowers students, faculty and staff to create a personally meaningful learning environment, where each accepts responsibility for contributing to the same.

CORE VALUES

In all that we do – in teaching, learning and serving – we value quality, integrity, and diversity.

Quality – We commit to a quest for excellence and strive to achieve our highest potential.

Integrity – We base our decisions and interactions on honesty, trust, respect, responsibility, accountability, and ethical behavior.

Diversity – We respect differences between and among members of the community by embracing and encouraging the expression of ideas, opinions, and thoughts exchanged freely, respectfully, and civilly.

GENERAL EDUCATION STATEMENTS

www.cochise.edu/AGEC

Mission Statement

General education at Cochise College creates opportunities for students to build the foundation of knowledge and skills necessary for lifelong success. It helps them enrich their quality of life by encouraging habits of mind that enable them to understand and value the world they live in and to contribute to its well-being.

Values Statement

Through its general education curriculum, Cochise College strives to instill into the learning process a sense of interconnectedness and wholeness. We value learning as an ongoing process. We value effective communication; aesthetic investigation, innovative solutions, and creative self-expression; critical thinking in problem solving; awareness of and respect for diversity; appropriate evaluation and application of information; and technological skills in information management and presentation. We believe these values lead to ethical, responsible social behavior. Our values are reflected in our general education outcomes.

COMMUNITY SERVICES

Cochise College extends its educational services to meet the needs of the entire county. Community services are those phases of the educational program that provide educational, cultural and recreational services beyond formalized classroom instruction. Among these services are free lectures; a program of public events and cultural activities including lectures and forums, art exhibits, film

series and non-credit courses; community use of the college libraries and other facilities; workshops to meet special needs of business, industry and the professions; economic research; community recreation; campus tours; public information; and a variety of conferences.

COCHISE COLLEGE FOUNDATION

The Cochise College Foundation is a private, community-based nonprofit organization that is fiscally and organizationally separate from Cochise College. Its mission is to promote student success, facilities development and program support for Cochise College. The foundation was established on March 20, 1967 and is recognized as a 501(C)(3) non-profit organization (income tax-deductible) by the Internal Revenue Service and the Arizona Corporation Commission.

The foundation board of directors has a county-wide membership. The foundation provides thousands of dollars in scholarships to Cochise College students each year and has assisted the college with several capital projects and academic program support. The foundation accepts monetary gifts, property, gifts-in-kind or other items of value bequeathed or donated for the benefit of Cochise College. The Cochise College Foundation can be reached at (520) 417-4100 or foundation@cochise.edu.

COLLEGE LOCATIONS

Benson Center

The Cochise College Benson Center is a 13,000-square-foot facility that includes classrooms, computer labs, a learning center and interactive television capabilities. For-credit, developmental, GED, ESOL and personal interest classes are offered in the day and evening. Full-time staff assists students with admissions, registration, placement and GED testing, and financial aid.

Douglas Campus

The Douglas Campus is located in a scenic area between Douglas and Bisbee and serves approximately 1,000 students each semester with a diverse curriculum of general education, liberal arts, transfer and direct employment, and adult education programs in GED preparation and English Language Acquisition for adults. The campus includes residence halls for men and women, an on-campus airport and athletic facilities.

Extended Learning

Extended Learning provides many of the college's programs and services in communities throughout Cochise and Santa Cruz counties and beyond. Courses and services are scheduled through the Adult Education program, Benson Center, Center for Lifelong Learning, Correctional Education Department, K-12 Outreach, Santa Cruz Center, Virtual Campus, Small Business Development Center and the Willcox Center.

Fort Huachuca

The Cochise College office on Fort Huachuca (Building 52104) provides advising and student services to military students, their families and civilians who can access Fort Huachuca. Classes are usually offered in eight-week sessions and meet in the classrooms at the Fort Huachuca Center (Building 67601).

Santa Cruz Center

Cochise College began offering classes in Santa Cruz County in October 2003. The Santa Cruz Center moved to is current location on Grand Avenue, a 28,000-square-foot facility, in 2013. Full-time staff assists students with admissions, registration, placement and GED testing and financial aid. Classes also meet at the education center and at other locations in the county.

Virtual Campus

Cochise College offers an array of web-based courses that students can take separately or as part of a degree or certificate program. Online courses meet the same standard as traditional classes and use Internet resources to enrich the educational experience. Using classes at the Virtual Campus, students can design a schedule that best fits into their busy lives. Visit the Virtual Campus to find information about courses, tuition and financial aid.

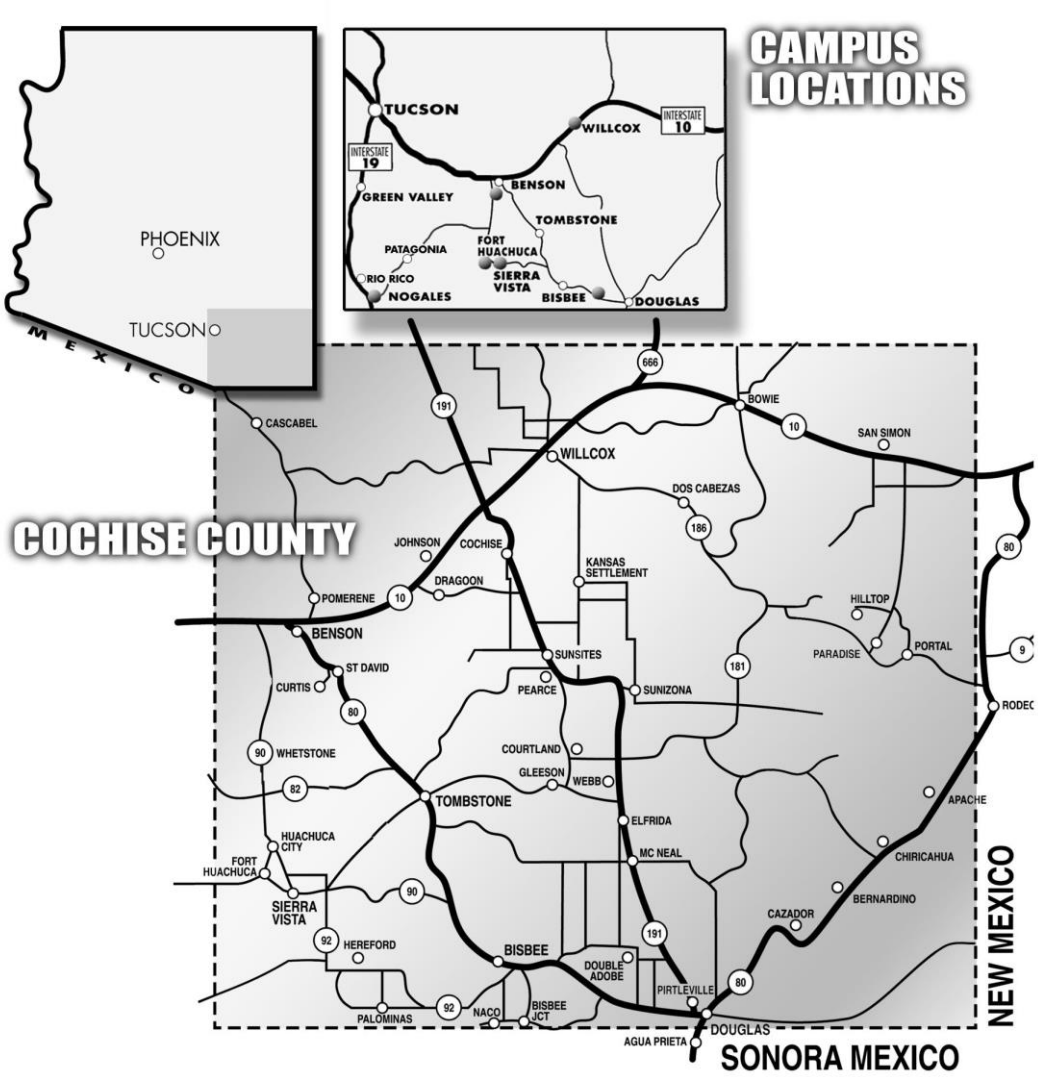
Sierra Vista Campus

The Sierra Vista Campus is located at the eastern edge of Sierra Vista, approximately one mile northeast of the junction of State Highways 90 and 92. The Sierra Vista Campus serves about 2,000 students each semester with a diverse curriculum of general education, transfer and direct employment programs, as well as adult education classes in GED preparation and English Language Acquisition for adults.

Willcox Center

The Cochise College Willcox Center is located on Willcox Unified School District property near the community high school. The center, serving approximately 200 students with day and evening classes, opened in 2010 with several classrooms, computer and science labs, open study space, and interactive television capabilities. Full-time staff assists with admissions, registration, placement testing and financial aid.

Area and Campus Maps



Sierra Vista Campus

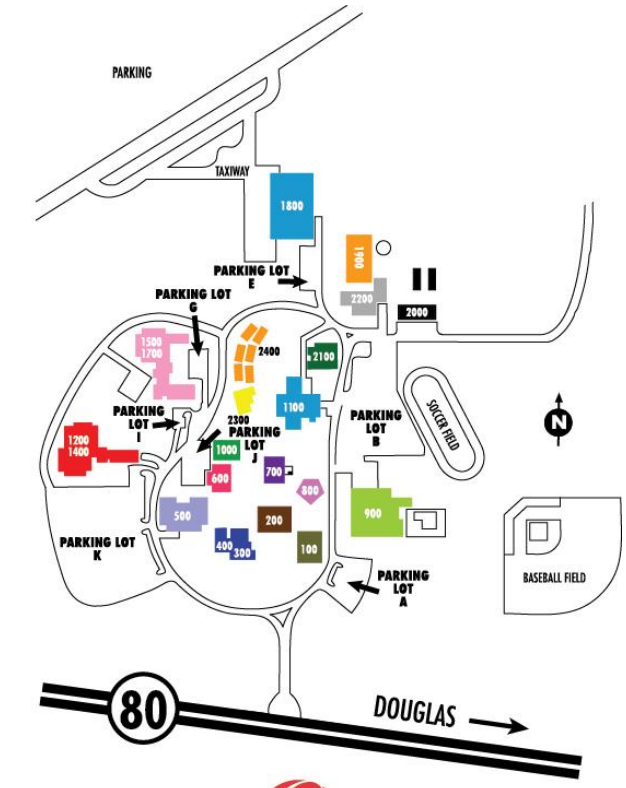
COCHISE COLLEGE

Sierra Vista Campus

	300	Nursing	S-NUR
	400	Art	S-ART
	500	Administration • President • VP, Information Technology • VP, Instruction/Provost • VP, Administrative Affairs	S-ADM
	600	Fitness Center	S-FIT
	700	Community Outreach • Center for Lifelong Learning • Small Business Development Center	S-COM
	800	General Classroom Building • Switchboard/Mailroom	S-GCB
	900	Andrea Cracchiolo Library • Horace Steele Conference Room • IT Support	S-LIB
	1000	Student Union Building • Admissions/Registration • Advising/Counseling/Testing • Bookstore • Business/Cash Office • Community Room • Financial Aid/VA • Human Resources • Union Café	S-SUB
	1100	Science Building • Dean, Math, Sciences & Health Sciences	S-SCI
	1200	Learning Commons • Open Computer Lab/Tutoring	S-LCC
	1400	Adult Education • Dean, Business & Technology • Institutional Research	S-AED
	1500	Career Technical Education	S-CTE
	2000	Annex Building • Center for Economic Research • Foundation/Marketing/External Affairs • K-12 Outreach • Business Services • IT Support	S-ANX
	2100	Maintenance/Warehouse	S-MNT

revised 12/14

Douglas Campus



COCHISE COLLEGE

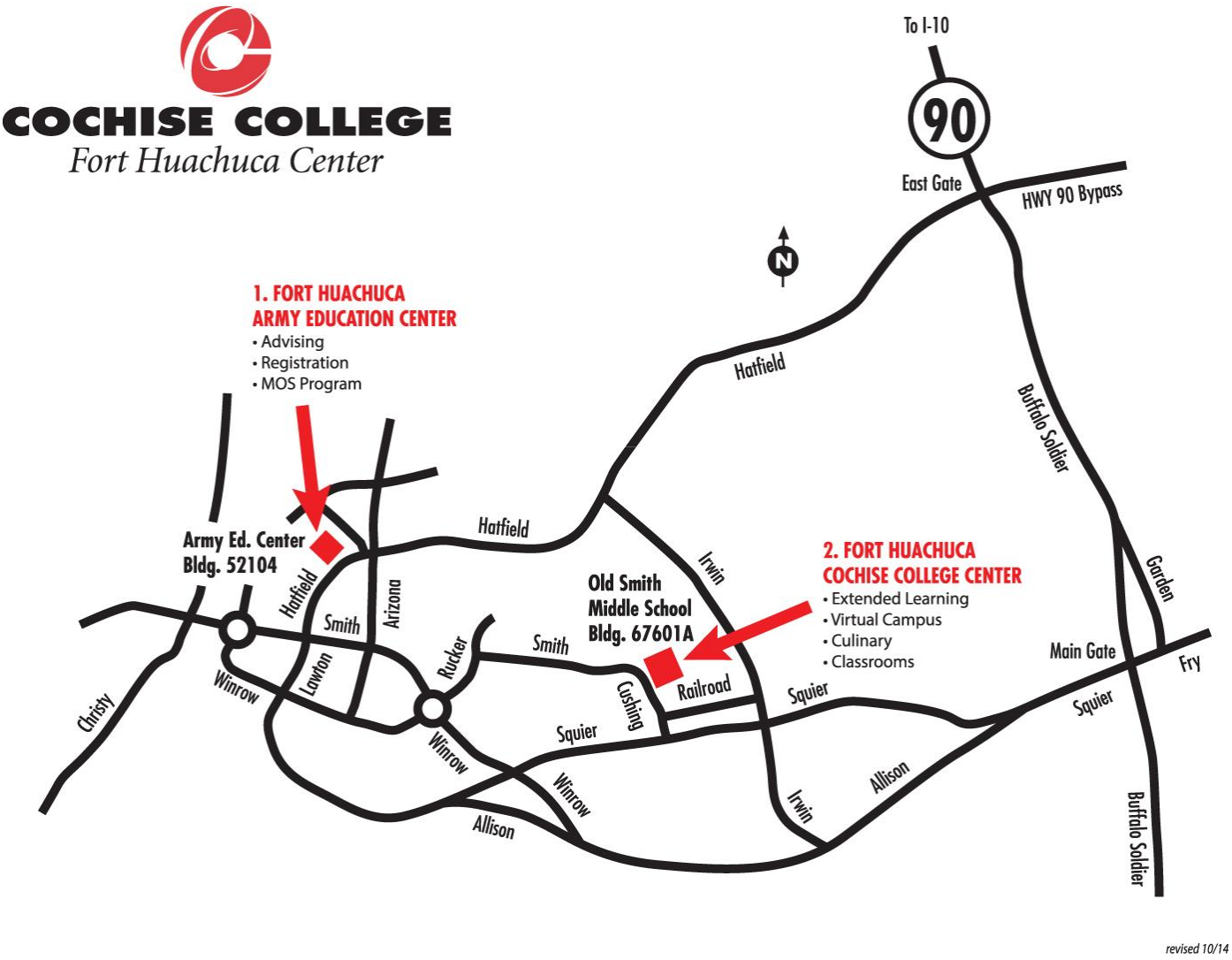
Douglas Campus

100	Administration • President's Office • Human Resources • College Foundation • Marketing	D-ADM	1000	Student Services • Admissions & Records • Advising • Counseling • Cash Office • Disability Services • Financial Aid	D-SSB
200	BUS/CIS Building • IT Support • Computer labs	D-BUS	1100	General Classrooms • Finance • Instructional Classrooms • Faculty Offices	D-GEN
300	Charles DiPeso Library • Media/ITV	D-LIB	1200-1400	Huachuca Hall • Security Office	D-HUA
400	Adult Education	D-AED	1500-1700	Chiricahua Hall	D-CHR
500	Student Union	D-SUB	1800	Aviation Building • Flight • Avionics • Photography	D-AVN
600	Learning Commons Complex • Careers & Co-Op • CTEPS • MISSL Computer Lab • Recruiter • Testing Center • TRiO Student Support Services • Tutoring Center	D-LCC	1900	Art Building	D-ART
			2000	Maintenance • Purchasing/Receiving • Mail Room Services	D-MNT
700	Bookstore • U of A South • Print Shop	D-BKS	2100	Science Building	D-SCI
			2200	Art/Fabrication • Welding • Art • Digital Media Arts	D-AFB
800	Little Theatre	D-THE	2300	Residential Housing Office	D-RHO
900	Gymnasium • Athletics • Physical Education • Central Plant	D-GYM	2400	Townhouse Residence Halls	D-RES

revised 4/15

Some services and classes may be relocated to alternative facilities on campus as the college proceeds with construction and renovation projects.

Fort Huachuca

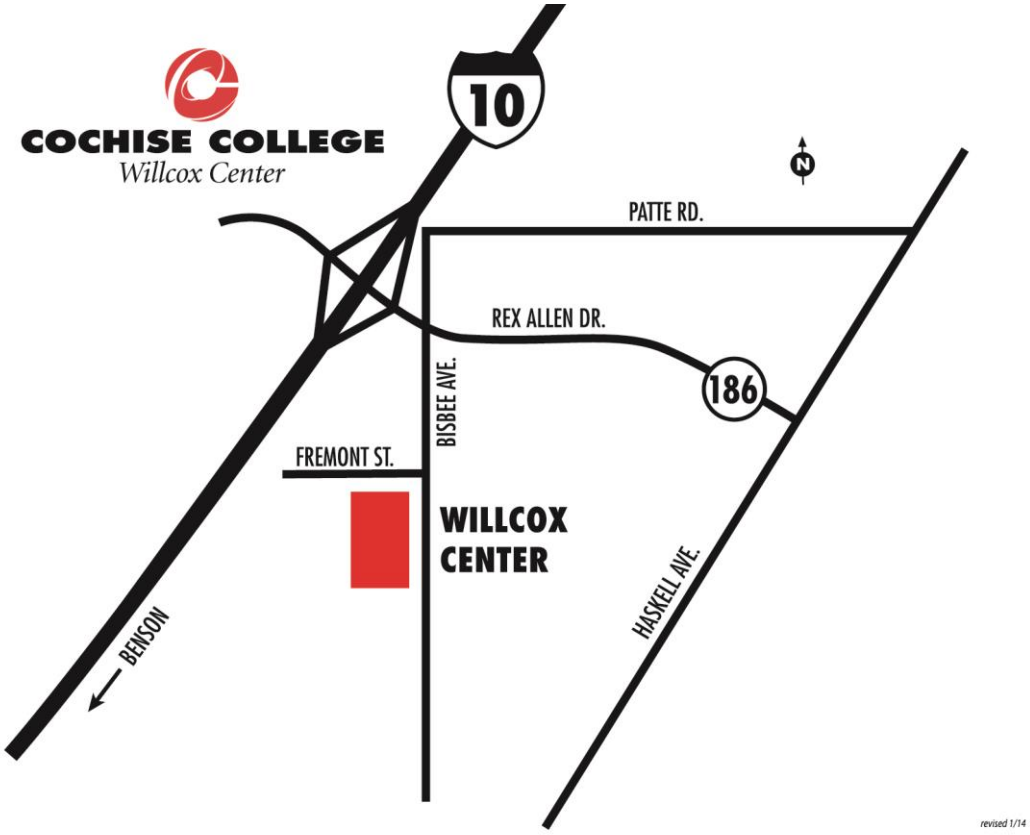


For information contact:

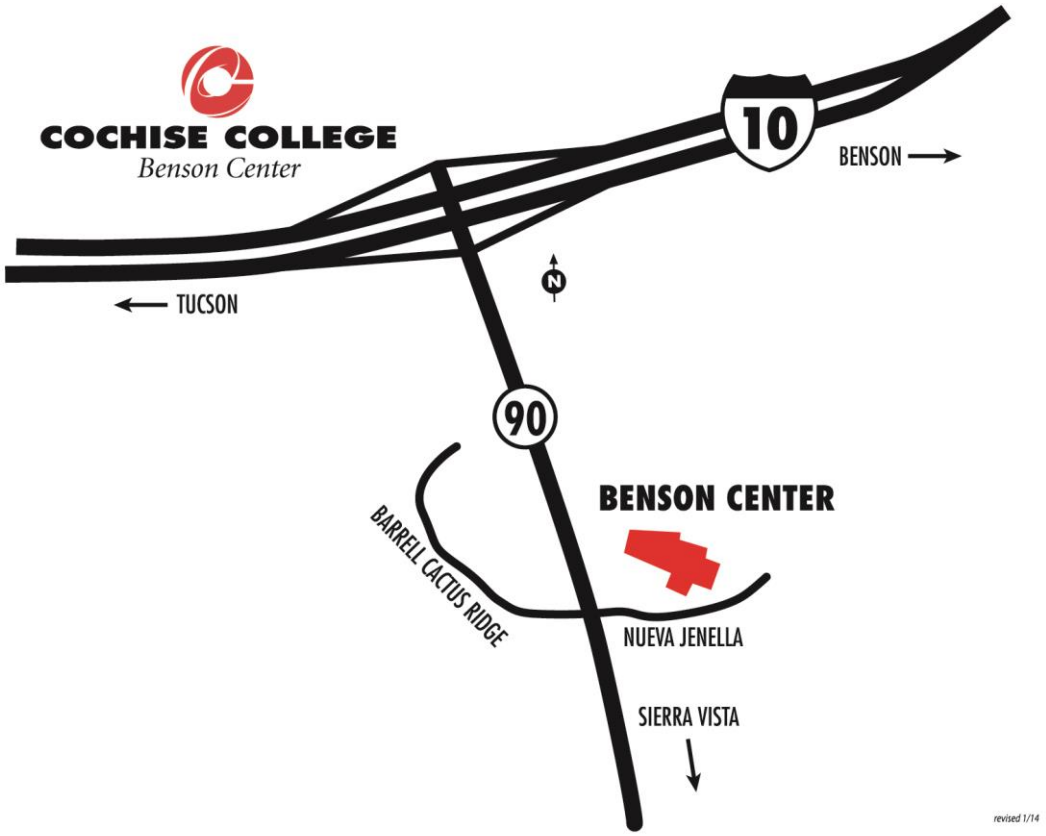
Army Education Center, 533-3010

Cochise College Fort Huachuca Representative, 533-2391

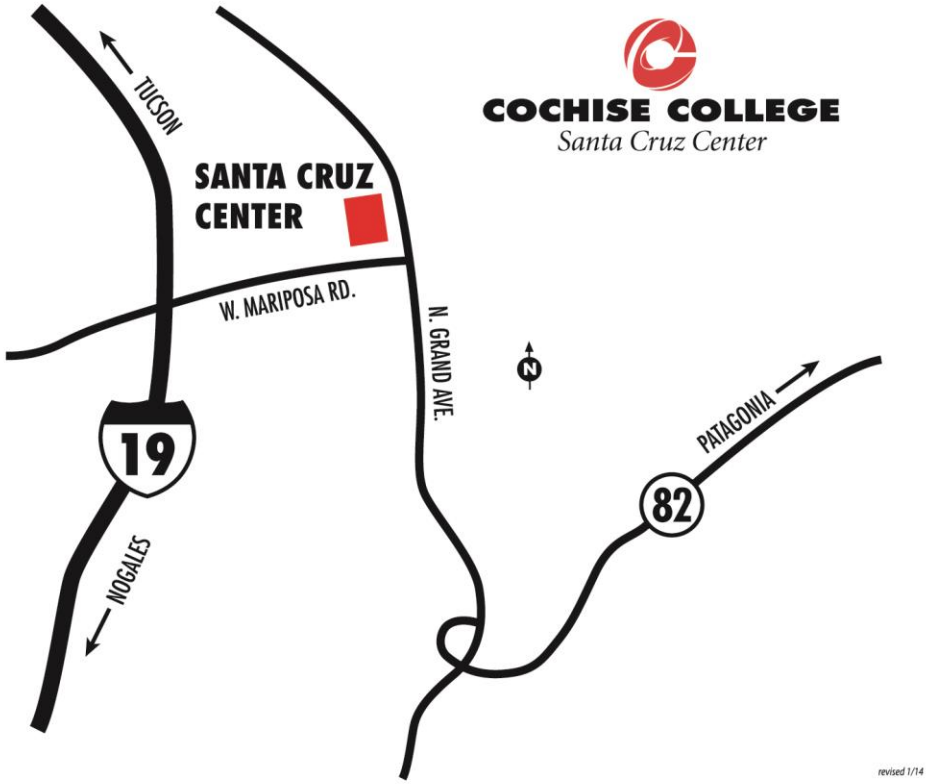
Willcox Center



Benson Center



Santa Cruz Center



Getting Started

Campus Visits/Tours

Cochise College encourages new and prospective students to visit our campuses and centers. Tours for all campuses can be scheduled through our Recruiting Office by calling (520) 515-3609 or requested on our website at www.cochise.edu/contact/tours. Our Recruiting Office is happy to arrange tours on an individual or group basis. Tours can include student leaders sharing their experiences at Cochise College and opportunities to meet faculty in your area of interest. We look forward to meeting you at Cochise College!

Admission

Any person who meets one of the following criteria will be admitted:

1. A graduate of a high school that is accredited by a regional accrediting association as defined by the United States Office of Education or approved by the Arizona Board of Education or the appropriate state educational agency;
2. Holds a high school certificate of equivalency, such as a GED;
3. 18 years of age or older on or before the first day of classes for which application is being made;
4. A transfer student in good standing from another college or university;
5. Students attending high school with a Concurrent Registration Form signed by the designated school official and a parent;
6. Additional admission criteria is required for international, aviation, nursing, transfer and concurrent high school students.

Students Under 18 Years of Age

If you are under 18 years of age and a non-high school graduate or GED recipient, you are asked to contact the Admissions Office for admission information.

Re-Admission

If you have been absent from Cochise College two semesters or longer, you will need to re-apply for admission prior to the beginning of the semester for which you desire to enroll.

General Admission Procedures

You will be admitted to Cochise College after the Admissions Office has received and approved:

1. An application for admission;
2. An application fee for those classified as border commuters or international students for tuition purposes;
3. High school transcripts. All applicants under the age of 18 are requested to submit either an official high school transcript or GED certificate with test scores before registration will be permitted. Final high school transcripts or GED certificate are requested of all students who apply for any financial aid program offered through Cochise College. High school transcripts should be sent directly by the sending institution to the Admissions & Registration office. Official transcripts carried by the applicant cannot be accepted if previously opened;
4. Student health record: Part II. This self-appraisal form must be completed by all applicants applying for admission to the aviation or nursing programs, those participating in athletics, or those who wish to live in the residence halls at the Douglas Campus. The college reserves the right to require a physical examination or immunizations when deemed necessary by a particular college instructional program.

Transfer to Cochise College

The college requests that prospective students who have attended other regionally accredited colleges and universities to have official copies of their academic records sent to the Registration Office.

Accredited higher-education institutions are those that are accredited by the New England Association of Schools and Colleges, Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools and Western Association of Schools and Colleges.

Transfer of college or university level courses will be accepted from non-regionally accredited institutions that are listed in the latest edition of the Higher Education Directory, a directory of postsecondary, degree-granting institutions in the U.S. and its possessions and territories accredited by regional, national, professional and specialized agencies recognized as accrediting bodies by the U.S. Secretary of Education and by the Council for Higher Education Accreditation (CHEA).

If you are requesting an evaluation of transcripts for the purpose of seeking a Cochise College degree, you must have submitted an admissions application to create a student record.

The following regulations govern your admission if you have attended another college:

1. Courses for which you have earned a grade of D or F cannot be accepted for credit.
2. You may be admitted on academic probation if you have earned a GPA below 2.0.
3. If you have been academically dismissed from another college, you may not attend Cochise College for one full semester after dismissal.
4. At the discretion of the Aviation Department, a professional pilot candidate who transfers to Cochise College may receive credit for previously earned certificates and ratings if he/she completes at least one Cochise College flight course resulting in a certificate or rating.
5. Grade point averages earned at other institutions are not calculated with GPAs earned at Cochise College.

6. College transcripts must be mailed directly or sent electronically by the sending institution to the Registration Office. Official sealed transcripts carried by the applicant are acceptable.

Academic Renewal/Forgiveness

Academic renewal/forgiveness allows a student who previously attended Cochise College to have selected grades (D, F and/or WF) excluded from the calculation of the grade point average (GPA). A student returning to the college after an absence of at least three years and has completed 12 or more credits with a minimum GPA of 2.00 following re-enrollment is eligible to pursue academic renewal/forgiveness. Contact the Admissions & Registration Office for more information.

Student Identification Number

Disclosure of social security numbers to Cochise College is voluntary and not required by either statute or regulation.

Disclosure and use of social security numbers will aid in matching current and future academic records with any past records, ensuring that full credit is received for all academic work completed at Cochise College. If students decline to provide a social security number opportunities for claiming tuition on taxes will not be available through the American Opportunity and Lifetime Learning Credits (Form 8863).

Students, faculty and staff are assigned individual identification numbers – not identical to their social security numbers – during the admission and/or hiring processes. The student identification number, which you will receive in the mail or by email when you apply for admission, shall be used to obtain all services provided by the college. Your social security number may still be required for some services, such as financial aid and reporting education tax credit information to the federal government.

Admission of High School Students

If you are a junior- or senior-level high school student who would like to enroll in one or two classes:

- Submit an application for admission.
- Submit a one-time Concurrent Enrollment Form. This form signed by a parent or legal guardian providing approval, as well as the student providing permission to release grades to their high school, must be on file prior to registration.
- Take the appropriate Cochise College placement tests.

High school students taking eligible occupational courses can complete a COMPACT program registration packet and save up to 50 percent on the cost of each course. Packets are available at the Student Development Center, Admissions Office, and Tech Prep Office, or by calling (520) 515-5347.

Admission to the Aviation Program

If you are seeking admission to the Professional Pilot or Avionics programs, contact the Aviation Department well in advance of your planned entry date. The department will arrange a pre-entry conference. If you plan to obtain a degree, you will be required to take a placement test. Admission to Cochise College does not guarantee acceptance into the aviation program.

Admission to the Allied Health Programs

Admission to Cochise College does not guarantee acceptance into the college's allied health programs, as enrollment is limited and frequently there are more applicants than can be accepted.

You must apply for admission to the allied health programs and take the appropriate entrance exam. The deadline for submitting an application to the nursing program for the fall semester is usually March 1 and is available in the Nursing Office or on the Cochise College website. The appropriate entrance exam should be taken prior to the fall semester of expected admission.

Contact the Nursing / Allied Health Department for additional information regarding criteria for regular admission, for special admission to enter second semester freshman courses, for admission by LPNs (licensed practical nurses) and LVNs (licensed vocational nurses).

The Arizona State Board of Nursing denies licensure to individuals with a felony conviction who have not been fully discharged five years prior to applying for a license. Drug screening and fingerprint clearance cards are required for enrollment in the nursing program. Contact the Nursing / Allied Health Department or the Arizona State Board of Nursing for information regarding this regulation.

Admission of International Students

All international students must have a high school equivalency or be at least 18 years of age at the time of registration. All full-time international students need to attend on an F-1 Visa.

The International Student Office will issue a letter of admission and a SEVIS I-20 after receiving and approving the following documents:

1. Application for admission.
2. Application fee in bank draft or U.S. check, payable to Cochise College.
3. Student health record.
4. Official high school transcripts.
5. Statement of financial guarantee for $16,400 or the actual annual cost of the program (whichever is greater).
6. A housing application and deposit is necessary only if College housing is desired.

Border Commuter Students

Border commuter students from Mexico are permitted to attend Cochise College part-time or full-time. These students must apply for an F-1 student visa prior to attending our institution. The I-20 will be issued to the student once the following documents have been submitted to our office:

1. Application for admissions
2. A onetime application fee (full-time students only) of $50 (U.S. dollars) payable by check or money order to Cochise College
3. Bank guarantee form
4. Student health form

An F-1 international packet can be obtained and more information can be found at www.cochise.edu/sonora or www.cochise.edu/international or by calling the International Student office at (520) 417-4050.

PDF documents can be downloaded from www.cochise.com.mx/english or www.cochise.com.mx/spanish.

Health Insurance

All F-1 students who have an I-20 issued by Cochise College and who are living in the United States are required to have the approved health insurance plan. For more information, contact the International Student Office.

Office of Disability Services

You may request special disability assistance by visiting one of the Offices of Disability Services or by calling (520) 515-5337 or (520) 417-4023 to make an appointment. Students who need accommodations for placement testing should contact one of the Offices of Disability Services prior to testing.

Student Email

Cochise College's email system is recognized as an official mode of communication between the college and students. Student email accounts are free and provide students with a way to receive college news and other notifications. Log in at my.cochise.edu.

Residency Requirements and Regulations

Prop. 300/Tuition Assessment

Cochise College has revised its registration procedure for credit classes to comply with requirements of Proposition 300. Approved by Arizona voters in November 2006, Prop. 300 requires verification of eligibility for in-state tuition rates for U.S. citizens and qualifying legal immigrants.

The law does not prevent anyone from enrolling at Cochise College. It does require that students who are not citizens or legal residents pay out-of-state tuition rates. The law further states that persons who are not citizens or legal residents are not entitled to tuition waivers, fee waivers, grants, scholarship assistance, financial aid, tuition assistance, or any type of financial assistance that is subsidized with state monies.

A list of qualifying documents to verify eligibility for in-state tuition are available online. Visit Prop. 300 at the admissions section of the Cochise College website.

Documentation can be returned to any of the college's Admissions and Registration Offices. All documentation should be scanned/emailed to the attention of the registrar to admissions@cochise.edu or registration@cochise.edu. Call 800-593-9567 for more information.

Each applicant shall have legal residency determined prior to the time of registration and payment of fees. It is your responsibility to register under the correct residence determination. Enforcement of residency requirements and regulations are the responsibility of the Cochise College president.

Appeal of residency interpretation or judgments rendered by the college administration shall be handled through appeal channels as established by the district governing board in accordance with the Arizona Revised Statutes, which determine classification for tuition purposes.

Definitions

Arizona Revised Statutes (ARS 15-1801 et seq.) and Cochise College policies determine classification for tuition purposes.

Adult means a person who is 18 years of age or older.

Armed Forces of the United States means the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, the Commissioned Corps of the United States Public Health Services and the National Oceanographic and Atmospheric Association. (ARS 15-1801)

Continuous attendance means enrollment at an educational institution in this state as a full-time student, as such term is defined by the governing body of the educational institution, for a normal academic year since the beginning of the period for which continuous attendance is claimed. Such person need not attend summer sessions or other such intersession beyond the normal academic year in order to maintain continuous attendance. (ARS 15-1801)

Domicile means a person's true, fixed and permanent home and place of habitation. It is the place where he/she intends to remain and to which he/she expects to return when he/she leaves without intending to establish a new domicile elsewhere. (ARS-15-1801)

State resident means a person who is domiciled in the State of Arizona for not less than one year (365 days). (ARS 15-1802)

County resident means a person who is domiciled in the State of Arizona for not less than one year and who has been physically present in the county for at least 50 days prior to the first day of classes of the semester. (R7-1-23)

Dependent means any person (son, daughter, or legal ward) who receives more than half of his/her support for the calendar year from a parent or guardian, as documented on the federal income tax form, and who is domiciled in Arizona.

Alien means a person who has been granted refugee status in accordance with all applicable laws of the United States, has met all other requirements for domicile, and who is entitled to classification as an in-state refugee student.

Emancipated person means a person who is neither under a legal duty of service to his/her parent nor entitled to the support of such parent under the laws of this state. (ARS-15-1801)

Parent means a person's father or mother, or if one parent has custody, that parent. Or, if there is no surviving parent or the whereabouts of the parents are unknown, then a guardian of an unemancipated person (if there are no circumstances indicating that such guardianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person). (ARS 15-1801)

In-State Student Status

Except as otherwise provided in this catalog, no person having a domicile elsewhere than in this state is eligible for classification as an in-state student for tuition purposes. (ARS 15-1802)

A person is not entitled to classification as an in-state student until he/she is domiciled in this state for one year, except that a person whose domicile is in this state is entitled to classification as an in-state student if he/she meets one of the following requirements:

1. His/her parent's domicile is in this state for no less than one year and his/her parent is entitled to claim him/her as an exemption for state and federal tax purposes.
2. He/she is an employee of an employer that transferred him/her to this state for employment purposes or he/she is the spouse of such employee.
3. The domicile of an unemancipated person is that of such person's parent. Any unemancipated person who remains in this state when such person's parent, who had been domiciled in this state, moves from this state is entitled to classification as an in-state student until attainment of the degree for which currently enrolled, so long as such person maintains continuous attendance.
4. A person who is a member of the Armed Forces of the United States stationed in this state pursuant to military orders, or who is the spouse or dependent child as defined in section 43-1001 of a person who is a member of the Armed Forces of the United States stationed in this state pursuant to military orders, is entitled to classification as an in-state student. The student, while in continuous attendance toward the degree for which currently enrolled, does not lose in-state student classification.
5. Beginning in the summer II semester of 2015, all persons who are honorably discharged from the United States Armed Forces and provide their DD Form 214 with honorable discharge notation.
6. A person who is a member of an Indian tribe recognized by the United States Department of the Interior, whose reservation land lies in this state and extends into another state and who is a resident of the reservation, is entitled to classification as an in-state student.

Concurrent Enrollment: Non-Resident Tuition

a. It is unlawful for any non-resident student to register concurrently in two or more public institutions of higher education in this state, including any university or community college, for a combined student credit-hour enrollment of more than six semester hours without payment of non-resident tuition at one of such institutions.
b. Any non-resident student desiring to enroll concurrently in two or more public institutions of higher education in this state, including any university or community college, for a combined total of more than six semester hours and who is not subject to non-resident tuition at any of such institutions shall pay the non-resident tuition at the institution of his/her choice. The amount will be equivalent to non-resident tuition at such institution for the combined total of semester hours for which the non-resident student is concurrently enrolled. (ARS 15-1807)

Proof of Residency: In-State

A domicile affidavit needs to be filed with the Admissions Office verifying continuous residency in the state for a 12-month period. At least three of the following items will be used to establish proof of residency:

1. Filing of state income tax report for the previous year.
2. Current registration of motor vehicle in Arizona.
3. Current registration as a voter in the state.
4. Arizona driver's license issuance date.
5. Graduation from an Arizona high school.
6. Bank statement (checking or savings) from an Arizona banking institution.
7. Source of support (employer).
8. Dependency as indicated on federal income tax declaration for dependents.

Registration Information

New and returning students in good academic standing can register for classes during early registration as well as regular registration periods. Registration for classes must be completed the day before the class begins.

Enrollment Verification

Students requesting verification of their enrollment for any purpose (life insurance, loan deferment, etc.) must do so in person at the Registration Office at any time after the start of a semester. Enrollment verification is free of charge and processed within 48 hours of receiving the request. The National Student Clearinghouse is Cochise College's authorized agent for providing degree and enrollment verifications at www.degreeverify.org.

Family Educational Rights and Privacy Act - FERPA

Cochise College shall not permit the disclosure of information from educational records or personally identifiable information contained therein other than directory information of students without the written consent of the student to any individual, agency, or organization other than in specific situations as outlined by the Family Educational Rights and Privacy Act of 1974, its amendments and the final rule of the U.S. Department of Education. Students may withhold disclosure of any directory information by submitting written notification to the Admissions Office prior to the first day of classes each semester. Failure on the part of any student to specifically request the withholding of directory information indicates individual approval for disclosure. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by Cochise College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); or a person or company with whom Cochise College has contracted (such as an attorney, auditor, collection agent, or official of the National Student Clearinghouse).

Cochise College designates the following items as directory information: student name, major field of study, participation in

officially recognized activities and sports, dates of attendance, degrees and awards received and most recent previous school attended. The college may disclose any of those items without prior written consent, unless notified in writing to the contrary by the student in advance of any request.

Money Matters

Tuition and Fees

All fees may change as approved by the Cochise College Governing Board. Consult the Admissions Office, the Business Office or the college website at www.cochise.edu/tuition.

All students must have sufficient funds to defray their immediate expenses at the time of registration. All fees are payable as the final step in the registration process. Cochise College accepts checks or credit card payments for the total amount due for tuition and fees.

Past due accounts may be turned over to a collection agency. You, as a delinquent student, will be liable for any collection/attorney fees incurred.

Consult the class schedule for specific registration and payment dates. In the event a check is returned unpaid by your bank, you may be assessed a service fee and dropped from all classes. You may also be dropped from all classes if fees are not paid in full on or before dates indicated. All remaining charges must be paid in full prior to any future registration.

A textbook vouchering system is available for students in vocational rehabilitation, veterans' vocational education and other qualified veterans.

Note to Financial Aid Students: When financial aid has been approved and applied to your account, any credit balance will be refunded to you. Any amount unpaid after the financial aid has been applied will be due and payable by the student.

Student Fees for 2015-16 Fiscal Year

I. Tuition

Effective July 1, 2015 to June 30, 2016

Fees subject to change.

Border commuter application fee	$20
International student application fee	$50
International student illness/accident insurance	TBD
Tuition Payment Plan Fee (e-cashier)	$35
MOS credentialing fee	$50

Fall/Spring/Summer Tuition

In-state	$77 per credit
Out-of-state (1- 6 credits)	$116 per credit
over 6 credits (retroactive to first credit)	$250 per credit
Virtual Campus	$116 per credit
Aviation (resident)	Regular tuition
Co-op education courses (per credit hour)	$39
Western Undergraduate Tuition Waiver	$116
New Mexico Tuition Waiver	$77

Senior "Golden Apache" Tuition

60 years or older, resident of Cochise or Santa Cruz counties

Regular Credit Courses	$39
Regular Online Credit Courses	$59

Miscellaneous Fees

Credit by examination (non-refundable, per credit)	$77
Accuplacer testing per retest	$20
DSST Proctor Fee	$20
CLEP Proctor Fee	$20
General Education Development (GED)	TBD
General Education Development (GED) Santa Cruz	TBD
General Education Development (GED) Retest	TBD
General Education Development (GED) Retest Santa Cruz	TBD
Myers-Briggs	$15
Strong Interest Inventory	$10
Other Testing Services	$20
Transcripts (official)	$10
Placement Scores (faxed)	$10
Transcripts (overnight)	$75
Returned check fee (for each returned)	$50
Airport Tie-Down Fee (per month)	$100
Check Reissuance Fee	$50
Replacement of ID card or meal card	$20

Deposits

Residence hall housing	$150*
Family housing apartments	$150*
Professional pilot	$90**
Avionics technology	$90**
Spanish Immersion field trip to Mexico - (summer I)	$200
Spanish Immersion field trip to Mexico - (summer II)	$35

*Required with housing application (does not apply toward room and board fees).

**A non-refundable deposit that will be applied to aviation tuition and/or fees. The deposit will be refunded if the student is not accepted into the program by the Aviation Department.

On-Campus Living

Chiricahua and Huachuca Hall - Single Occupancy
Desert View Townhouses - Double Occupancy

Regular Student – 17-week semester

Meal Program	$2,065
Room Rate	$1,155

Combined Rate

Meal plan and Housing with 16 or more credit hours of enrollment	$2,065
Meal plan and Housing with 12-15 credit hours of enrollment	$2,660

Professional Pilot – 21-week semester

Meal Plan	$2,535
Room Rate	$1,430

Combined Rate

Meal plan and Housing with 16 or more credit hours	$2,535

of enrollment	
Meal plan and Housing with 12-15 credit hours of enrollment	$3,275

Married Student Housing

Cost/month	$400
Cost/month if primary student enrolls in 12 or more credit hours	$300

II. Residence Hall Fees

(Douglas Campus)

Room and board (meals) is combined. If you live in a residence hall, you must participate in the board program. One-bedroom apartments are available for students with families; apartment residents do not need to purchase a meal plan. Single rooms and apartments have special requirements. Call the Housing Office at (520) 417-4062 for further information. Payment for room and board is due at registration or by the last day to add classes in a term.

Room

Full-time students have the option of living on the Douglas Campus, which offers three types of living space: townhouse-style residences that opened in 2010; residence halls that are single- and double-occupancy, suite-style rooms; and family housing apartments that have one bedroom each and are partially furnished. Residents have access to Internet, laundry facilities, free cable and local telephone services.

Board

Students living in the residence halls (excluding family housing) are required to participate in the food service plan as provided by the college. Students withdrawing from the college may be eligible for a meal plan refund, prorated on a weekly basis, up to four weeks after the start of the fall/spring term. Students enrolled in only a first or second eight-week term will be charged a prorated meal plan rate of 50 percent of a full 17-week meal plan. Departing eight-week only students are eligible for refunds, prorated on a weekly basis, up to two weeks after the eight-week term begins. Any refund exceptions to this policy must be made in writing to the Dean of Student Services and must contain the rationale for the request along with any documentation requested by the dean. Requests for exceptions to this policy will not be accepted by the dean after 15 working days from the departure of the student.

Apartment and Room Deposits

Deposits are required as indicated above to reserve your room or apartment. The deposit will be refunded according to the conditions of the residence hall and family housing contracts less any amounts due to the college for damages or other charges.

Special Tuition Programs

New Mexico Tuition Program

A special tuition agreement exists for full-time students between Cochise College and Western New Mexico University. For more information, contact the Admissions Office.

Western Undergraduate Exchange (WUE) Tuition Program

Cochise College is a member of the Western Undergraduate Exchange (WUE) program. If you are a resident of Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Northern Marianas Islands, Oregon, South Dakota, Utah, Washington or Wyoming, contact the Admissions Office to see if you are eligible for this tuition program for full-time students.

Arizona-Sonora Agreement

Tuition waivers are available to students from Sonora through an agreement between the Arizona-Mexico Commission and the Comisión Sonora-Arizona. Qualifying students from Sonora who are studying in Arizona may pay in-state tuition for a maximum of two years. Students from Arizona who wish to study in Sonora have a series of educational and living options available. For more information, visit www.cochise.edu/sonora or contact the Douglas Campus One Stop at (520) 417-4038 or (520) 417-4042.

Senior Citizen Tuition Program

Students who are 60 years or older can apply for the "Golden Apache" tuition program, available for Arizona residents who live in Cochise or Santa Cruz counties. This program allows a tuition discount of the regular in-state tuition and online tuition rates. Registration fees, lab fees, bookstore charges, avionics, flight tuition and fees, and non-credit courses are not included in this discount. You have to meet in-state residency requirements for tuition purposes and have lived in Cochise or Santa Cruz counties for at least 50 days prior to the start of the semester. Waivers cannot be accepted retroactively. Applications for this program may be picked up at the Admissions Office.

Flight Training Fees

Consult the Aviation Department for current flight fees. All flight fees are subject to change without notice. See the refund section for refunds of unused flight fees.

Laboratory Fees

Lab fees are charged for those classes requiring special equipment, facilities, etc. Lab fees range from $5 to several hundred dollars. Consult the current lab fee schedule for courses charging lab fees and the amount. All student lab fees are due at the time of registration.

Refunds

Tuition and Fee Refunds:

Students must be signed up for a class the day prior to the course start date. To receive a full refund for a dropped course, it must be dropped prior to the start of the term. Students who drop a class within the first week of the term will be refunded 90 percent of their tuition, which can be applied to a new course added to their schedule — as long as the new class has not met yet. No refund is available after the 90-percent refund window closes.

All refunds for tuition, fees and deposits due to a student will first be applied to any amounts owed to the college.

Sufficient time must be allowed for final clearance of fee payment checks before refunds will be made.

Residence Hall Refunds:

Students are eligible for a 50 percent refund of room fees if leaving residence within 21 days of the first day of classes for each semester or 21 days of the start date of a specific program in which they are enrolled. Room fees will not be reimbursed after the 21st day as specified above.

Students living in the residence halls (excluding family housing) are required to participate in the food service plan as provided by the college. Students withdrawing from the college may be eligible for a meal plan refund, prorated on a weekly basis, up to four weeks after the start of the 17-week term. Students who are enrolled in only a first or second eight-week term will be charged a prorated meal plan rate of 50 percent of a full 17-week meal plan. Departing eight-week-only students are eligible for refunds, prorated on a weekly basis, up to two weeks after the eight-week term begins. Any refund exceptions to this policy must be made in writing to the Dean of Student Services and must contain the rationale for the request along with any documentation requested by the Dean. Requests for exceptions to this policy will not be accepted by the Dean after 15 working days from the departure of the student.

If a class or classes are canceled by the college, you will receive a full refund for all tuition and fees for cancelations. Refunds will be issued for canceled classes within three weeks after the end of registration. In the case of such cancelations, the student may opt to enroll in alternative classes and apply the tuition and fees from the canceled class(es) to the newly enrolled class(es).

Federal Title IV Financial Aid Refunds

Students who receive federal financial aid funds are subject to the federal refund policy. Students who completely withdraw before completing 60 percent of the term are subject to this policy and may owe a repayment of the unearned portion of their grant funds. Students have 45 days to return the funds to Cochise College. If repayment is not made during the 45 days, the repayment owed will be turned over to the Department of Education for collection. Once a repayment is turned over to the Department of Education, eligibility for additional federal aid is suspended until satisfactory payment arrangements are made.

Pell grants and SEOG are subject to this repayment provision. Students who have received student loan funds are responsible for completing an exit interview and for notifying their lender of the withdrawal. The federal work-study program is not subject to the refund policy.

The withdrawal date is the date:

- The student began the withdrawal process prescribed by the institution,
- The student otherwise provided the school with official notification of the intent to withdraw, or
- For the student who does not begin the school's withdrawal process or notify the school of the intent to withdraw, the midpoint of the payment period or period of enrollment for which Title IV assistance was disbursed (unless the institution can document a later date).

The percentage of the payment period or period of enrollment completed for which assistance was awarded is calculated by dividing the total number of calendar days comprising the payment period or period of enrollment for which the assistance is awarded into the number of calendar days completed in that period as of the day the student withdrew.

For additional policy and regulatory information, contact the Financial Aid Office.

Academic Procedures & Information

Catalog Choice

A student maintaining continuous enrollment in any public community college or public university in Arizona may graduate from Cochise College by meeting the requirements in the Cochise College catalog in effect at the time of that student's initial enrollment, or by meeting the requirements in any single Cochise College catalog in effect during any subsequent academic year (fall, spring, summer) of that student's continuous enrollment.

Continuous enrollment is defined as being enrolled during consecutive academic years in which course credit is earned. Non-credit and audited courses do not count toward continuous enrollment.

For the purpose of determining a student's catalog requirements, continuous enrollment is limited to the five academic years prior to the student's current year of enrollment. The five-year continuous enrollment limit moves forward with the student into year six and beyond. Re-enrollment is required of any student who has not completed a course during a given academic year. In the event of re-enrollment, the student must meet the requirements of the catalog in effect at that time.

Classification of Students

Freshman: Student with fewer than 32 passing units of college credit

Sophomore: Student with 32 or more passing units of college credit

Full-time Student: Student carrying 12 or more credits during a semester

Three Quarter-time Student: Student carrying 9 or more but fewer than 12 credits during a semester

Half-time Student: Student carrying 6 or more but fewer than 9 credits during a semester

Less Than Half-time Student: Student carrying fewer than 6 credits during a semester

Academic Status

Good Standing - You are considered to be in good standing as long as your cumulative grade point average (GPA) is 2.0 or higher on a 4.0 scale.

Probation - Once you have attempted 13 or more credits, your academic status is reviewed after each semester. If your cumulative grade point average (GPA) is below a 2.0 (on a 4.0 scale), you will be notified that you have been placed on academic probation and a notation of your academic status will be placed on your transcript. While you are on probation, you will be permitted to enroll in 12 units or less for the semester.

Suspension - If you have two consecutive terms with a cumulative GPA below 2.0, you will be suspended from school and a notation of your academic status will be placed on your transcript. Note: If you are suspended following the spring semester, you may not attend classes the following summer and fall semesters. If you are suspended following the fall semester, you may not attend classes the following spring and summer semesters.

Teaching Modalities

Classes taught at Cochise College may employ any one of these modalities:

On-site: Classes that meet physically and students are required to attend regular face-to-face sessions.

> **Mediated:** A type of on-site class that includes digital or web-based content delivered into the classroom by various technologies (computers, smart monitors, and data projectors, etc.).
>
> **Live Streaming:** A type of on-site class that streams live content from a physical classroom to students who are not able to be physically present for one or more sessions.

Interactive Television (ITV): Classes taught at more than one location using ITV as the primary delivery mechanism and online resources for transmitting documents and exams.

Blended: Classes where content is delivered using both on-site and online modalities in roughly equal proportions.

Online: Classes that require no on-site meetings. These classes may include synchronous and asynchronous activities or a proctored examination, but they are designed to be completed by students who do not need to be physically present.

Grading System

Grade Definitions - Grades are earned in each course and recorded on your permanent record. Grade definitions are as follows:

A The highest academic grade possible; an honor grade which is not automatically given to a student who ranks highest in the course, but is reserved for accomplishment that is truly distinctive and demonstrably outstanding.

B A grade that denotes achievement considerably above acceptable standards and mastery of course materials.

C Indicates a satisfactory degree of attainment and is the least acceptable standard for graduation from college or additional studies within the discipline. This grade implies completion of the minimum outcomes identified in the course curriculum.

D Denotes a limited understanding of the subject matter; meeting only the minimum requirements for passing the course. This grade will not transfer to another institution of higher education nor is it acceptable for additional studies within the discipline.

F Indicates inadequate or unsatisfactory attainment, serious

deficiency in understanding of course material or failure to complete requirements of the course.

W **Withdraw**. Indicates a withdrawal from the course up to five calendar days prior to the start of finals.

I **Incomplete**. Indicates that for a justifiable reason, such as a serious illness, you failed to complete all requirements for the course. The instructor has the option of issuing an I rather than an F. When this happens, the instructor submits a grade of incomplete to the Registration Office. You must make up an incomplete during the succeeding semester (or other time frame if required by an outside agency) or the grade is changed from an I to an F on your permanent record unless there is a contract extension on file in the Registration Office. The grade of I is not computed in your GPA.

AU **Audit.** Registration and fee policies for auditing a course are the same as those for registering for college credit. However, the instructor will give priority to students registering in the course for credit.*

IP **In Progress**. Indicates that the course has not been completed at the time the grade rosters were issued.

P **Pass.** Indicates that you have done C or higher work in a class taken for pass-fail.

X **Fail**. Indicates that you have earned a D grade or failed in a class taken for pass-fail.

*You cannot audit a class that is designated as a pass/fail class. If you audit classes, you will not receive grades or credit. The instructor will not require audit students to take examinations or hand in assignments. If you register as an auditor, you may not change to a credit basis later than Friday of the second week of the semester. If you register for credit, you may change to audit up to five calendar days prior to the start of finals. The drop/add procedure is used to effect such changes.

Grade Point Average (GPA)

Semester grades are assigned grade points as follows:

Grade	Points per credit earned
A	4
B	3
C	2
D	1
F	0

A three-credit course with a grade of A earns you 12 grade points. The total grade points accumulated are divided by the total of credits attempted (excluding W, I, and AU grades), to determine your cumulative grade point average (GPA).

In determining academic standing at Cochise College, the GPA of a transfer student is computed on the basis of credits attempted at Cochise College only and will not include credits and grade points earned at another college.

Grade Reports

Cochise College has an online student grade report system. You can view and print your grades at your convenience.

Grade Change

A grade that has been reported to the registrar by an instructor may be changed only by the instructor issuing the grade, or the appropriate instructional manager.

Academic Honors

If you complete 12 or more credits in one 16-week semester or phase at Cochise College and maintain a semester GPA of 3.9 or higher, you will be recognized as achieving high academic honors - President's List; if you complete 12 or more credits in one 16-week semester or phase at Cochise College and maintain a semester GPA of 3.5 to 3.899, you will be recognized as achieving academic honors - Dean's List.

Attendance

Student attendance is a major factor in academic success. Cochise College conducts a census report on the 10th day of the semester. Students who have not attended in that time may be dropped for non-attendance. Each of your instructors is responsible for establishing specific attendance criteria for each class and communicating the criteria to you in writing during the first week of the course. If you exceed the limit of absences established by the instructor, the instructor may drop you from the class. Note: If you are dropped from class during census or by an instructor, you will not receive a refund on tuition and fees.

If you are on a college-sponsored trip, your absence may be excused. However, you are responsible for all assignments missed while excused.

Course Repeats

A course may be repeated six times for a grade. All courses will be listed on your transcript with the grade received. The highest grade earned will be computed for graduation and cumulative grade point average. You do not have to repeat a course that you have failed unless it is a prerequisite for another course or is a course required for graduation or transfer.

Credit Load Limitations

Cochise College believes that maximum educational benefits accrue when students enroll for a reasonable course load. The college has established the following maximum number of units for which a student may register:

Concurrently enrolled high school students:	12 credits
Beginning freshman (first time college student):	19 credits
All other students:	
With a cumulative GPA greater than 2.00	19 credits
With a cumulative GPA less than 2.00	12 credits

Non-Traditional Learning

A maximum of 30 units shall be allowed for credit for non-traditional learning experiences, including up to 30 units of CLEP. Credit granted in this area shall not count toward Cochise College residency requirements.

Advanced Placement

The Advanced Placement Program (AP) recognizes that some students are able to complete college-level courses while attending high school. Advanced Placement exams are administered in high schools by the College Board each year in May. Students who receive a score of 3, 4 or 5 on an AP subject exam may be awarded college credit. Contact a Cochise College counselor to confirm course credit toward a specific program.

For more information about the AP program, visit the College Board website at www.collegeboard.org.

CLEP and DSST

College Level Examination Program (CLEP)/Defense Activity for Non-Traditional Education Support [DANTES] Standardized Subject Test (DSST)

Cochise College accepts both the general and the subject examinations of the CLEP/DSST for college credits provided satisfactory scores are attained. Scores of 50 or above on all general examinations will entitle you to six credits in each of the five general examinations: English composition (with essay), humanities, mathematics, natural sciences (not to include credit for laboratory science requirements) and social sciences. CLEP scores and credit for foreign languages will be accepted based on institutional policy.

You must complete at least one Cochise College course before credit may be granted for CLEP/DSST. Credit earned under CLEP/DSST may not be used toward the 16 resident hours required for a degree. Three to 16 credits, depending upon the examination, may be earned by scores of 50 or higher on the subject examinations. Contact the Testing Center for a list of tests available and the corresponding number of credit hours.

If you take CLEP/DSST examinations, duplicate credit will not be awarded in subjects at the same level. You will not be awarded credit through CLEP/DSST for courses equivalent to, or at a lower level than, other courses you have already taken through formal course work. For further information, refer to policy 3006.3 Non-Traditional Education Credit at www.cochise.edu/transfer-to-cochise.

You may earn up to 30 credits of college credit by taking CLEP/DSST examinations. However, credit granted by Cochise College does not obligate any other college or university to accept such credit. Contact the Testing Center for testing arrangements.

Credit by Examination

Cochise College offers credit by exam for many courses. Credit by exam is useful when you wish to demonstrate your prior knowledge by testing out of a course. You must register for those courses in which you wish to establish credit by exam.

You must meet the following criteria to be eligible to request credit by exam:

1. Be currently enrolled at Cochise College
2. Have successfully completed 12 credits at Cochise College
3. Have completed an application for credit by exam
4. Have obtained the approval of the instructional dean and appropriate faculty member of the department
5. Have met required prerequisites, if any, established by the department
6. Have paid a non-refundable fee per credit. If consumable materials are used in the exam, an additional fee will be charged.

If you qualify, you will take the examination prior to the last day to add classes in a given semester or prior to an alternative date established by the department. To earn credit by exam, you must receive a grade of C or higher.

You may not apply for credit by exam if you have:

1. Received college credit in a higher-level course.
2. Previously challenged the course.
3. Previously enrolled in the course and received a failing grade.

You may challenge only those courses numbered 100 or above.

Credits and grades earned will be computed into your grade point average but may not be used to fulfill residency requirements or to meet VA or financial aid requirements for determining benefit status. Only full-time faculty or designee may administer credit by examination.

You may apply for credit by examination by obtaining an application form from the instructional department offering the course. Permission and signatures from the appropriate instructor and instructional administrator are required.

Military Service Schools/MOS

Cochise College follows the credit recommendations of the American Council on Education for Military Service Schools. Colleges differ on their policies related to credit allowed for military service schools. Credit granted by Cochise College does not obligate any other college or university to accept such credit.

Evaluation and posting of credits shall be made once a student has been admitted to Cochise College. Students may not request nor will they be given an official Cochise College transcript until they have registered for and completed at least three units or more of Cochise College coursework with grade of A, B, C, D, F, P or Audit. Credit earned for military service may not be used toward the 16 resident hours required for residency at Cochise College. A maximum of 30 credits may be used from non-traditional learning credit.

Independent Study

Independent study may be provided for students on a case-by-case basis due to unique circumstances (e.g., the course is required for completion of a program of study and is not otherwise available or to accommodate other special student needs). An independent study contract between the student and the instructor must be completed in advance and approved by the appropriate academic dean.

GRADUATION REQUIREMENTS

Associate Degree

Cochise College is committed to maintaining and encouraging the highest academic standards, thereby enabling you to transfer to colleges and universities throughout the nation and to successfully

enter the world of work. Review the requirements that have been established for graduation.

Required Grades and GPA

All courses used to complete requirements for any degree program (AA, AAEE, ABUS, AS, AGS or AAS) or any certificate program must be completed with a C or higher grade.

All courses used to complete requirements for any transfer degree program (AA, AAEE, ABUS, AS) must also be transferable to all Arizona public universities.

All Cochise College associate degrees require a cumulative grade point average of 2.0 or higher.

Credentials (Degree/Certificate) Requirements

Students earning an Associate of Arts, Associate of Arts in Elementary Education, Associate of Business, Associate of Science, Associate of General Studies, or Associate of Applied Science degree must complete all degree coursework with a grade of C or better.

All of these degree programs include an identified general education component, determined by the college in compliance with the Arizona General Education Curriculum (AGEC).

To receive any degree, a student must also have a cumulative grade point average (GPA) of 2.0 or higher.

A minimum of 16 credits of any degree granted must be completed in residency at Cochise College.

A minimum of 8 credits in the AGEC component of any transfer degree must be completed in residency at Cochise College. Under special circumstances, exceptions may be granted.

The Certificate of Completion is awarded to students who complete a certificate program outlined in the Cochise College catalog.

All course work required in a Certificate of Completion program must receive a grade of "C" or better.

A minimum of 25% of the credits must be taken in residency from Cochise College for each Certificate of Completion granted.

Residency Requirements

A minimum of 16 credits must be taken in residency at Cochise College to earn an associate degree. A minimum of 25 percent of the required credits must be taken in residency at Cochise College to earn a certificate. A minimum of eight of the required credits of the Arizona General Education Curriculum (AGEC) must be taken in residency at Cochise College to earn the AGEC. Coursework below college level and non-traditional credit courses may not be used to satisfy residency requirements.

Additional Associate Degrees

You may earn additional associate degrees at Cochise College if you complete for each additional degree:

- All requirements for the additional degrees
- Sixteen additional Cochise College credits not used in other Cochise College degree(s) for each additional degree

Schedule Changes

Adding Classes

Students who wish to add classes to their schedule must register the day before the class begins.

This policy does not apply to programs operating under non-traditional calendar requirements or under open entry-open exit or short-term conditions.

Dropping Classes

Classes dropped after the last day of the add/drop period and up to five calendar days prior to the start of finals or the final day of class will result in a W on the student's transcript. After this time, the student will receive a letter grade of A, B, C, D, F or I (Incomplete) from the instructor.

Changing Levels of Classes

Any changes in class level are initiated by the instructor of the course.

Final Exams

Final examinations are required and serve an important purpose in the academic process. Certain courses may call for demonstration of competency with final projects requiring more than two hours of work; these projects may serve as a final examination. Such projects must necessarily begin and end before the examination period. The class shall meet during the scheduled examination period for review, critique or other meaningful activity. The final examination schedule is printed in the class schedule at the beginning of each semester. You are expected to attend all final examinations as scheduled. If you do not attend, you may receive a failing course grade (at the discretion of the instructor).

Graduation/Completion Application Process

Associate Degree

1. Complete and submit the online graduation application found at www.cochise.edu/advising/graduation.
2. Make an appointment with a Student Development Center counselor/advisor for a graduation check and to complete the application process.
3. Notify the Student Development Center of any change of address that occurs during this processing period.

You must file your application by the deadline date listed in the academic calendar in the current schedule of classes. If you miss the deadline to file, your diploma will be delayed. Your diploma will be mailed to you after final grades are processed, records evaluated and degrees posted to your official transcript. The student must ensure there are no encumbrances or holds on their college record to avoid delays in distribution of their transcript or diploma.

Certificate

1. Complete and submit the online graduation application found at www.cochise.edu/advising/graduation.
2. Make an appointment with an SDC counselor/advisor for a graduation check and to complete the application process.
3. Notify the Student Development Center of any change of address that occurs during this processing period.

You may file an application at any time during the semester you are completing the requirements for the certificate. Certificates will be mailed to you after all courses have been completed, records evaluated and the certificate posted to your official transcript. The student must ensure there are no encumbrances or holds on their college record to avoid delays in distribution of their transcript or certificate.

TRANSCRIPTS

A transcript is a copy of your permanent academic record.

Transcript Processing Time

Transcript processing time is normally five business days after receiving the signed request form and payment. Transcripts are mailed via first-class mail. Cochise College offers an expedited service for an additional fee. More information can be found at www.cochise.edu/transcripts.

Transcript Request Instructions

Per federal law, transcript requests must be submitted in writing and include the student's signature; telephone requests cannot be honored. Cochise College will mail official transcripts. Request your official Cochise College transcript at www.GetMyTranscript.com or complete an interactive form at www.cochise.edu/transcripts and send it by mail or email to:

Cochise College
Transcript Department
901 N. Colombo Ave.
Sierra Vista, AZ 85635
Fax: (520) 515-5452
transcripts@cochise.edu

Transcript fees must be paid at the time the transcript request is submitted. Payment may be made by check or money order payable to Cochise College, or a business office representative will accept your credit card payment at (520) 515-5416 or (520) 417-4076. We accept Visa, MasterCard, Discover and American Express. Transcripts will not be sent if you have an outstanding financial obligation with Cochise College.

Unofficial Transcripts

Unofficial transcripts are strictly copies of the computerized records on file (after 1985) in the Student Information System. Follow these instructions to access your student account and view your transcripts:

Log on to MyCochise and click on Unofficial Transcripts or

- Go to www.cochise.edu/cc
- At User Login, scroll to the bottom of the page.
- In the User ID box, enter your Student ID (it is a number that starts with C000...) or your Social Security number.
- Enter your PIN number. If you are a first-time user or your account has been reset, your PIN will be your six-digit date of birth using the MMDDYY format.
- Once in the system, you will be prompted to change your pin to another six-digit number.

Archived Transcripts

If you attended Cochise College prior to 1985, your academic records may be archived. Forward requests for these transcripts to:

Cochise College
Attn: Archived Transcripts
901 North Colombo
Sierra Vista, AZ 85635
Fax: (520) 515-5452

WITHDRAWAL FROM COCHISE COLLEGE

To withdraw from Cochise College, log into your account at my.cochise.edu or obtain a Drop/Add Form from the Registration Office or the Student Development Center.

If you fail to withdraw officially, you could jeopardize the receipt of any refunds and may be assigned an F for all courses in which you are enrolled. It is your responsibility to withdraw from your classes.

ACADEMIC DISHONESTY

Cochise College requires students to adhere to the highest level of ethical academic conduct and has no tolerance for academic dishonesty. The college may impose serious academic sanctions as a result of academic dishonesty up to and including suspension and expulsion from a specific program or from the college. A statement regarding and defining academic dishonesty shall be part of every course procedure sheet.

Academic dishonesty consists of many forms of unethical academic conduct, including, but not limited to, cheating, fabrication, plagiarism and facilitating academic dishonesty.

1. Cheating means intentionally using or attempting to use unauthorized materials, information or study aids, as well as unauthorized devices such as cell phones and other technology.
2. Fabrication means intentional falsification of any information or citation.
3. Plagiarism means intentionally or knowingly representing the words or ideas of another as one's own.
4. Facilitating academic dishonesty means intentionally or knowingly helping another to commit an act of academic dishonesty.
5. Other forms of academic dishonesty include:
   a. Submitting work to more than one instructor for credit without disclosure and approval.
   b. Knowingly violating the terms of any academic sanction imposed for an earlier violation of Policy 3010.

STUDENT COMPLAINTS AND GRIEVANCES

If you have complaints, grievances, or personal concerns about a Cochise College course, instructor, or grade, you are encouraged to discuss the problem with your instructor first. If you are dissatisfied after the discussion, you may contact the appropriate academic dean or director or submit a student complaint form at www.cochise.edu/student-complaint-form.

Student Complaint Log

All complaints directed to college personnel by students are considered important and will be addressed by the respective employee, department and/or office personnel pursuant to Policy 4008 ("Student Grievances and Due Process"); however, only formal, written student complaints, including those sent by email and filed with the offices of the college president or the vice president for instruction/provost by current students, are considered official complaints.

Official complaints are documented, investigated, their resolution and/or disposition noted, with a record of such complaints maintained for no less than two years. Students and institutional personnel are advised that information about these official complaints will be shared with the college's accrediting agency, the Higher Learning Commission of the North Central Association; however, individual identities of students will be shielded without the express permission of said complainants. The complaint log is reviewed on an annual basis by the vice president for instruction/provost, who ascertains whether the complaints follow any particular pattern and whether special intervention, direction, and/or staff development is needed to mitigate subsequent complaints or address problems with institutional quality.

Degrees and Programs

Cochise College General Education Outcomes

Students fulfill general education requirements at Cochise College by demonstrating competency in the following: communication, creativity, critical thinking, diverse and global perspectives, information literacy, and technology literacy.

- **Communication:** Students, using writing and speaking skills, individually and collaboratively, discover, organize, and communicate information, ideas, and arguments in a clear and effective manner appropriate to the audience and purpose.
- **Creativity**: Students perform one or more of the following: analyze, evaluate, and reflect on aesthetic experiences; propose innovative solutions to technical, scientific, social, or individual problems; produce artifacts of self-expression.
- **Critical Thinking:** Students employ logical, analytical, analogical, and reflective reasoning in combination with scientific, mathematical, humanistic, or artistic inquiry to solve problems effectively.
- **Diverse and Global Perspectives:** Students demonstrate an understanding of the diversity of human experience and the interdependent roles of historical, cultural, socio-economic, geographic, and ecological influences on this experience.
- **Information Literacy:** Students recognize that information is needed, and they use both traditional and modern technologies to effectively locate, evaluate, and apply the needed information.
- **Technology Literacy:** Students apply technological skills and processes to effectively acquire, manage, and present information.

Cochise College is committed to continuous improvement in order to provide the best possible service. A key part of this commitment involves assessing student learning outcomes. Assessment, which occurs apart from the regular grading of student work, is conducted by faculty using tests, research papers, projects, presentations, or standardized examinations to discover how well students who have passed a course actually achieved the expected learning goals. Faculty members analyze the results so they can develop strategies to help improve student learning in the future. Faculty are also engaged in the assessment of general education outcomes embedded in their programs.

Transfer Degrees

Arizona Transfer

Cochise College offers the first two years of a four-year program for students who wish to earn a bachelor's degree.

Transfer degree programs include the Associate of Arts (AA) for liberal arts, social science, and fine arts majors; Associate of Arts Elementary Education (AAEE); Associate of Business (ABUS) for business administration and computer information systems majors; and Associate of Science (AS) for natural, physical, and life science majors. These degrees are designed to transfer to all Arizona public universities. A student can enter the university as a junior after completing one of these associate degrees. Although these degrees are designed for transfer to all Arizona public universities, not all Arizona public universities offer majors in all areas. Consult with an advisor in the Student Development Center to ensure that the university you choose offers a degree in your area of study and that you choose the most appropriate courses for this degree.

A statewide agreement between Arizona public community colleges and universities guarantees students two ways to transfer: (1) earning an associate degree or (2) completing a general education block called the Arizona General Education Curriculum (AGEC). The AGEC block fulfills the lower-division general education requirements at all Arizona public community colleges and universities. For most majors, Cochise College recommends students transfer after having completed an AGEC or associate degree to ensure a seamless process.

For more specific information on transfer to one of the three state universities—Arizona State University (ASU), Northern Arizona University (NAU), or the University of Arizona (U of A)—visit www.aztransfer.com or consult with a Cochise College advisor. The AZTransfer website provides information regarding policies and procedures for transferring credits from community colleges to the public universities in the state of Arizona. Students can see how their coursework will transfer to Arizona's public universities by visiting the website of the Arizona Course Equivalency Guide (CEG) at http://aztransmac2.asu.edu/cgi-bin/WebObjects/CEG. In addition, the Shared Unique Number (SUN) System helps students identify courses that will directly transfer among Arizona's community colleges and three public universities. Using the SUN System, students can easily search for and enroll in courses that offer direct equivalency at other Arizona colleges and universities. SUN courses have their own unique course number and prefix listed alongside the college's course number. Visit www.aztransfer.com/sun for more information.

Cochise College also has some specific transfer agreements with each of these universities. Consult with an advisor for more detailed information on these options.

Private Transfer Agreements

Cochise College also has private articulation agreements with the following institutions. For more information, check the websites or consult with a Cochise College advisor.

American Public University System	www.apus.edu
Ashford University	www.ashford.edu
California University of Pennsylvania	www.calu.edu
Capella University	www.capella.edu
Chamberlain College	www.chamberlain.edu
Charter Oak State College	www.charteroak.edu
Embry-Riddle Aeronautical University	www.erau.edu
Franklin University	www.franklin.edu
Grand Canyon University	www.gcu.edu
Kaplan University	www.cc.kaplan.edu
Northcentral University	www.ncu.edu
Troy University	www.troy.edu
University of Phoenix	www.phoenix.edu

University of the Potomac	www.potomac.edu
Wayland Baptist University	www.wbu.edu
Western International University	www.wintu.edu
Western New Mexico University	www.wnmu.edu

Other Associate Degrees

Students should consult with an advisor in the Student Development Center concerning specific requirements and transfer options available for these degrees.

Associate of General Studies (AGS) Degrees - While not designed primarily for transfer, AGS degrees offer flexibility for the student who may wish to transfer to an out-of-state institution by including general education requirements. The student may also choose to complete an AGEC block to enhance possible transfer to an in-state institution.

Associate of Applied Science (AAS) Degrees - An extensive selection of AAS degree programs is available to students to prepare for employment in a specific career. In some cases, the programs are linked to agreements enabling a student with an AAS degree to transfer to an Arizona university without loss of credit. For more information, speak with an advisor or visit www.aztransfer.com/associates_degrees/aas_bas.

Cochise College General Education Courses - Transfer Degrees

Arizona General Education Curriculum (AGEC)

Arizona public community colleges and universities have agreed upon a common structure for transfer of general education curriculum. The Arizona General Education Curriculum (AGEC) block fulfills the lower-division general education requirements at all Arizona public community colleges and universities. Arizona residents who complete only an AGEC need to have a minimum cumulative grade point average of 2.5 and a grade of C or better in each AGEC course for assured admission into an Arizona public university, while Arizona residents who complete an associate degree need to have a minimum cumulative grade point average of 2.0 for assured admission.

The AGEC block at Cochise College consists of 35-39 credits. Coursework should be chosen from the appropriate AGEC course list to meet specific degree requirements.

General education requirements are:

Composition	6 credits
Mathematics	3-5 credits
Laboratory sciences	8 credits
Arts	3 credits
Humanities	3 credits
Social and behavioral sciences	6 credits
Technology literacy (AGEC-B only)	3 credits
AGEC-A : general education electives	4-6 credits
AGEC-B: general education electives	1-3 credits
AGEC-S: additional mathematics and/or laboratory sciences	6-8 credits
TOTAL GENERAL EDUCATION REQUIREMENTS	35-39 CREDITS

The three types of AGECs are:

AGEC-A	meets the general education requirements for arts and liberal arts majors in the Associate of Arts (AA) degrees and in the Associate of Arts Elementary Education (AAEE) degree.
AGEC-B	meets the general education requirements for business and information systems majors in the Associate of Business (ABUS) degrees.
AGEC-S	meets the general education requirements for math and science majors in the Associate of Science (AS) degrees.

The following applies to all Cochise College AGEC blocks:

- All courses must be completed with a grade of C or better.
- A core curriculum course may be used to satisfy a general education requirement; however, the total credits required for the degree remain the same.
- Six credits of coursework must be completed to fulfill the intensive writing requirement. Courses that satisfy this requirement are designated [IW].
- The cultural and historical or global awareness requirements are satisfied by completing the arts, humanities, and social and behavioral science portion of the AGEC.
- A minimum of eight credits in the AGEC component of any transfer degree must be completed in residency at Cochise College.
- Placement testing is required and prerequisites may apply.

AA, AAEE, ABUS, and AS Degrees

COMPOSITION		**6 CREDITS**
ENG 101 (SUN# ENG 1101)	Composition	3
ENG 102 (SUN# ENG 1102)	English Composition or ENG 102H Honors	3
MATHEMATICS		**3-5 CREDITS**
AGEC-A		
MAT 142	Survey of College Mathematics	3
MAT 151 (SUN# MAT 1151)	College Algebra	4
MAT 154	Mathematics for Elementary Education Majors I	3
MAT 156	Mathematics for Elementary Education Majors II	3
MAT 167 (SUN# MAT 1160)	Elements of Statistics	3
MAT 182	Plane Trigonometry	3
MAT 187 (SUN# MAT 1187)	Precalculus	5
MAT 212	Calculus for Business	3
MAT 220 (SUN# MAT 2220)	Calculus I	5
MAT 227 (SUN# MAT 2227)	Discrete Mathematics	3
MAT 231 (SUN# MAT 2230)	Calculus II	4
MAT 241 (SUN# MAT 2241)	Calculus III	4
MAT 252	Introduction to Linear Algebra	3
MAT 262 (SUN# MAT 2262)	Differential Equations	3

AGEC-B

MAT 212	Calculus for Business	3
MAT 220 (SUN# MAT 2220)	Calculus I	5

AGEC-S

MAT 220 (SUN# MAT 2220)	Calculus I	5
MAT 231 (SUN# MAT 2230)	Calculus II	4
MAT 241 (SUN# MAT 2241)	Calculus III	4
MAT 252	Introduction to Linear Algebra	3
MAT 262 (SUN# MAT 2262)	Differential Equations	3

LABORATORY SCIENCES — 8 CREDITS

AGEC-A OR AGEC-B

AST 180	Introduction to Astronomy	4
BIO 100	General Biology (for non-majors)	4
BIO 105	Environmental Biology	4
BIO 156	Introductory Biology for Allied Health	4
BIO 160	Introduction to Human Anatomy and Physiology	4
BIO 181 (SUN# BIO 1181)	General Biology I (for majors)	4
BIO 182 (SUN# BIO 1182)	General Biology II	4
BIO 201 (SUN# BIO 2201)	Human Anatomy and Physiology I	4
BIO 202 (SUN# BIO 2202)	Human Anatomy and Physiology II	4
BIO 205 (SUN# BIO 2205)	Microbiology	4
BIO 226	Ecology	4
CHM 128	Forensic Chemistry	4
CHM 130 (SUN# CHM 1130)	Fundamental Chemistry	4
CHM 138	Chemistry for Allied Health	4
CHM 151 (SUN# CHM 1151)	General Chemistry I	4
CHM 152 (SUN# CHM 1152)	General Chemistry II	4
CHM 235 (SUN# CHM 2235)	General Organic Chemistry I	4
CHM 236 (SUN# CHM 2236)	General Organic Chemistry II	4
FOR 105	Forensic Science: Physical Evidence	4
GEO 101	Physical Geography	4
GLG 101 (SUN# GLG 1101)	Introduction to Geology I (Physical)	4
GLG 102	Introduction to Geology II (Historical)	4
PHY 110	Fundamentals of Physical Science	4
PHY 111 (SUN# PHY 1111)	General Physics I	4
PHY 112 (SUN# PHY 1112)	General Physics II	4
PHY 230 (SUN# PHY 1121)	Physics with Calculus I	4
PHY 231 (SUN# PHY 1131)	Physics with Calculus II	4

AGEC-S

BIO 181 (SUN# BIO 1181)	General Biology I (for majors)	4
BIO 182 (SUN# BIO 1182)	General Biology II	4
CHM 151 (SUN# CHM 1151)	General Chemistry I	4
CHM 152 (SUN# CHM 1152)	General Chemistry II	4
PHY 230 (SUN# PHY 1121)	Physics with Calculus I	4
PHY 231 (SUN# PHY 1131)	Physics with Calculus II	4

ARTS — 3 CREDITS

ART 103 (SUN# ART 1112)	Design Fundamentals	3
ART 106 (SUN# ART 1111)	Drawing I	3
ART 107 (SUN# ART 1101)	Survey of World Art: Prehistoric – Gothic	3
ART 108 (SUN# ART 1102)	Survey of World Art: Renaissance to the 20th Century	3
ART 120	Appreciation of Visual Arts	3
ART 216	Drawing II	3
ART 220	Printmaking I	3
ART 225	Printmaking II	3
ART 230	Color and Design	3
ART 231 (SUN# ART 1115)	Three-Dimensional Design and Sculpture	3
ART 245	Figure Drawing	3
ART 270	Ceramics I	3
ART 273	Ceramics IIA	3
ART 274	Ceramics IIB	3
ART 275	Ceramics III	3
ART 280	Painting I	3
ART 281	Painting II	3
ART 285	Beginning Photography	3
ART 286	Intermediate Photography	3
ART 290	Sculpture I	3
ART 291	Sculpture II	3
ART 293	Sculpture III	3
ART 294	Sculpture IV	3
ART 295	Watercolor Painting I	3
ART 296	Watercolor Painting II	3
DMA 210	Digital Imaging II	3
DMA 211	Computer Animation II	3
DMA 260	Graphic Design I	3
DMA 261	Graphic Design II	3
DMA 262	Digital Video Production	3
DMA 263	Digital Video Production II	3
DMA 266	Digital Photography	3
DMA 267	Digital Photography II	3
ENG 119 IW	Creative Writing	3
ENG 219 IW	Advanced Creative Writing	3
HUM 200 IW	Film History	3
JRN 201	Essentials of Newspaper Publishing	3
MUS 100	Fundamentals of Music Notation	3
MUS 109	Orchestra	1
MUS 110	Chorus	1
MUS 111	Band	1
MUS 123	American Popular Music	3
MUS 132	Music Theory I	3
MUS 133	Music Theory II	3

MUS 201	Ensemble	1
MUS 210	Music Theatre Workshop	2
MUS 260	Music Fundamentals through Experience	3
THE 101	Acting I	3
THE 201	Acting II	3
THE 220 (SUN# THE 2220)	Dramatic Structure	3

HUMANITIES		**3 CREDITS**
ART 107 (SUN# ART 1101)	Survey of World Art: Prehistoric –Gothic	3
ART 108 (SUN# ART 1102)	Survey of World Art: Renaissance to the 20th Century	3
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
COM 102 (SUN# COM 1100)	Essentials of Communication	3
COM 110	Public Speaking	3
ENG 220 IW	British Literature I	3
ENG 221 IW	British Literature II	3
ENG 222 IW	Introduction to Shakespeare	3
ENG 224 IW	American Literature I	3
ENG 225 IW	American Literature II	3
ENG 228 IW	Mythology and Folklore	3
ENG 230 IW	Literature of the Southwest	3
ENG 231 IW	Native American Literature	3
ENG 255 IW	Introduction to the English Language	3
ENG 260 IW	Irish Literature	3
ENG 265 IW	Major American Writers	3
ENG 273 IW	Women and Literature	3
HON 260 IW	The Human Quest for Utopia	3
HUM 101	Humanities in Contemporary Life	3
HUM 110	Introduction to Film	3
HUM 115	Cultural Heritage of the Southwest	3
HUM 116	Middle Eastern Humanities	3
HUM 200 IW	Film History	3
HUM 205 IW	Cultural Studies through the Humanities I	3
HUM 206 IW	Cultural Studies through the Humanities II	3
HUM 210	Foreign Film Classics	3
JRN 101	Introduction to Mass Communications	3
JRN 102 (SUN# JRN 2201)	Essentials of News Writing	3
MUS 101	Introduction to Music	3
MUS 232 (SUN# MUS 2222)	Music Theory III	3
MUS 233 (SUN# MUS 2223)	Music Theory IV	3
PHI 111 (SUN# PHI 1101) IW	Introduction to Philosophy	3
PHI 113 (SUN# PHI 1103)	Introduction to Logic and Language	3
PHI 130 (SUN# PHI 1105) IW	Ethics	3
PHI 201 IW	Philosophies of the East	3
PHI 202 IW	Philosophy of Religion	3
SPA 101 (SUN# SPA 1101)	Elementary Spanish I	4
SPA 102 (SUN# SPA 1102)	Elementary Spanish II	4
SPA 201 (SUN# SPA 2201)	Intermediate Spanish I	4
SPA 202 (SUN# SPA 2202)	Intermediate Spanish II	4
THE 103	Introduction to Theatre	3

SOCIAL AND BEHAVIORAL SCIENCES		**6 CREDITS**
AJS 101 (SUN# AJS 1101)	Introduction to Administration of Justice	3
AJS/COM 204 IW	Elements of Intercultural Communication	3
ANT 101	The Origin and Antiquity of Humankind	3
ANT 102	Society and Culture	3
ANT 110	Exploring Archaeology	3
ANT 111	Exploring Physical Anthropology	3
ANT 235 IW	Principles of Archaeology	3
ANT 285 IW	Prehistoric Cultures of North America	3
ANT 286 IW	Historic Indian Tribes of North America	3
ANT 288 IW	Native Peoples of the Southwest	3
ECN 201 (SUN# ECN 2201) IW	Principles of Macroeconomics	3
ECN 202 (SUN# ECN 2202) IW	Principles of Microeconomics	3
EDU 201	Introduction to Education	3
EDU 230	Classroom Relationships	3
GEO 121	World Regional Geography	3
HIS 110	History of the United States 1607–1877	3
HIS 111	History of the United States since 1877	3
HIS 201 IW	History of Women in the United States	3
HIS 229 IW	History of Mexico I	3
HIS 230 IW	History of Mexico II	3
HIS 240 IW	Survey of Western Civilization I	3
HIS 241 IW	Survey of Western Civilization II	3
HIS 242 IW	Survey of Western Civilization III	3
HIS 274 IW	The Holocaust	3
POS 110 (SUN# POS 1110)	American National Government	3
POS 220 IW	Federal and Arizona Constitution	3
POS 230 (SUN# POS 1120) IW	World Politics	3
POS 240 (SUN# POS 2204)	Comparative Politics	3
PSY 101 (SUN# PSY 1101)	Introduction to Psychology	3
PSY 103	Personality and Adjustment	3
PSY 210 IW	Social Psychology	3
PSY 230 IW	Personality Theories and Research	3
PSY 240 IW	Developmental Psychology	3
PSY 250 IW	Introduction to Psychological Research, Measurements and Statistics	3
PSY 270 IW	Abnormal Psychology	3
PSY 290 IW	Experimental Psychology	4
SOC 101 (SUN# SOC 1101)	Introduction to Sociology	3
SOC 160 (SUN# SOC 2215) IW	Ethnic Groups and Minorities	3
SOC 202 (SUN# SOC 2250) IW	Social Problems	3
SOC 210 IW	Marriage and the Family	3
SOC 212 IW	Women and Men in a Changing Society	3
SOC 230	Human Sexuality and Gender Awareness	3

TECHNOLOGY LITERACY		3 CREDITS
AGEC-B		
CIS 120 (SUN# CIS 1120)	Introduction to Information Systems	3
GENERAL EDUCATION ELECTIVES		
AGEC-A		4-6 credits
AGEC-B		1-3 credits
ADDITIONAL MATHEMATICS AND/OR LABORATORY SCIENCES		
AGEC-S		6-8 credits

Based on your major and after consulting with an advisor, select MAT 231 (SUN# MAT 2230), MAT 241 (SUN# MAT 2241), MAT 252, MAT 262 (SUN# MAT 2262), and/or appropriate laboratory science courses. See http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec or a complete list.

[IW] indicates courses that satisfy the intensive writing requirement.

Cochise College General Education Courses - Non-Transfer Degrees

AGS Degrees

COMPOSITION		6 CREDITS
ENG 101 (SUN# ENG 1101)	Composition	3
ENG 102 (SUN# ENG 1102)	English Composition	3

MATHEMATICS		3-5 CREDITS
MAT 122	Intermediate Algebra	3
MAT 123	Developmental Mathematics Level III	4
MAT 132	Applied Mathematics	3
MAT 142	Survey of College Mathematics	3
MAT 151 (SUN# MAT 1151)	College Algebra	4
MAT 154	Mathematics for Elementary Education Majors I	3
MAT 156	Mathematics for Elementary Education Majors II	3
MAT 167 (SUN# MAT 1160)	Elements of Statistics	3
MAT 182	Plane Trigonometry	3
MAT 187 (SUN# MAT 1187)	Precalculus	5
MAT 212	Calculus for Business	3
MAT 220 (SUN# MAT 2220)	Calculus I	5
MAT 227 (SUN# MAT 2227)	Discrete Mathematics	3
MAT 231 (SUN# MAT 2230)	Calculus II	4
MAT 241 (SUN# MAT 2241)	Calculus III	4
MAT 252	Introduction to Linear Algebra	3
MAT 262 (SUN# MAT 2262)	Differential Equations	3

LABORATORY SCIENCES	4 CREDITS
See list of acceptable courses for transfer degrees.	

ARTS	3 CREDITS
See list of acceptable courses for transfer degrees.	

HUMANITIES	3 CREDITS
See list of acceptable courses for transfer degrees.	

SOCIAL AND BEHAVIORAL SCIENCES	6 CREDITS
See list of acceptable courses for transfer degrees.	

AAS Degrees

COMPOSITION		6 CREDITS
ENG 101 (SUN# ENG 1101)	Composition	3
ENG 102 (SUN# ENG 1102)	English Composition	3

MATHEMATICS/LABORATORY SCIENCES		3-4 CREDITS
MAT 122	Intermediate Algebra	3
MAT 123	Developmental Mathematics Level III	4
MAT 132	Applied Mathematics	3
MAT 142	Survey of College Mathematics	3
MAT 151 (SUN# MAT 1151)	College Algebra	4
MAT 154	Mathematics for Elementary Education Majors I	3
MAT 156	Mathematics for Elementary Education Majors II	3
MAT 167 (SUN# MAT 1160)	Elements of Statistics	3
MAT 182	Plane Trigonometry	3
MAT 187 (SUN# MAT 1187)	Precalculus	5
MAT 212	Calculus for Business	3
MAT 220 (SUN# MAT 2220)	Calculus I	5
MAT 227 (SUN# MAT 2227)	Discrete Mathematics	3
MAT 231 (SUN# MAT 2230)	Calculus II	4
MAT 241 (SUN# MAT 2241)	Calculus III	4
MAT 252	Introduction to Linear Algebra	3
MAT 262 (SUN# MAT 2262)	Differential Equations	3
Nursing only		
NUR 121A	Medication Math I	2
NUR 121B	Medication Math II	2
Paramedicine only		
BIO 156	Introductory Biology for Allied Health	4
BIO 160	Introduction to Human Anatomy and Physiology	4

LIBERAL ARTS		6 CREDITS
AJS 101 (SUN# AJS 1101)	Introduction to Administration of Justice	3
AJS/COM 204	Elements of Intercultural Communication	3
ANT 101	The Origin and Antiquity of Humankind	3
ANT 102	Society and Culture	3
ANT 110	Exploring Archaeology	3
ANT 111	Exploring Physical Anthropology	3
ANT 235	Principles of Archaeology	3

ANT 285	Prehistoric Cultures of North America	3
ANT 286	Historic Indian Tribes of North America	3
ANT 288	Native Peoples of the Southwest	3
ART 103 (SUN# ART 1112)	Design Fundamentals	3
ART 106 (SUN# ART 1111)	Drawing I	3
ART 107 (SUN# ART 1101)	Survey of World Art: Prehistoric – Gothic	3
ART 108 (SUN# ART 1102)	Survey of World Art: Renaissance to the 20th Century	3
ART 120	Appreciation of Visual Arts	3
ART 216	Drawing II	3
ART 220	Printmaking I	3
ART 225	Printmaking II	3
ART 230	Color and Design	3
ART 231 (SUN# ART 1115)	Three-Dimensional Design and Sculpture	3
ART 245	Figure Drawing	3
ART 270	Ceramics I	3
ART 273	Ceramics IIA	3
ART 274	Ceramics IIB	3
ART 275	Ceramics III	3
ART 280	Painting I	3
ART 281	Painting II	3
ART 285	Beginning Photography	3
ART 286	Intermediate Photography	3
ART 290	Sculpture I	3
ART 291	Sculpture II	3
ART 293	Sculpture III	3
ART 294	Sculpture IV	3
ART 295	Watercolor Painting I	3
ART 296	Watercolor Painting II	3
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
COM 102 (SUN# COM 1100)	Essentials of Communication	3
COM 110	Public Speaking	3
DMA 210	Digital Imaging II	3
DMA 211	Computer Animation II	3
DMA 260	Graphic Design I	3
DMA 261	Graphic Design II	3
DMA 262	Digital Video Production	3
DMA 263	Digital Video Production II	3
DMA 266	Digital Photography	3
DMA 267	Digital Photography II	3
ECN 201 (SUN# ECN 2201)	Principles of Macroeconomics	3
ECN 202 (SUN# ECN 2202)	Principles of Microeconomics	3
EDU 201	Introduction to Education	3
EDU 230	Classroom Relationships	3
ENG 119	Creative Writing	3
ENG 219	Advanced Creative Writing	3
ENG 220	British Literature I	3
ENG 221	British Literature II	3
ENG 222	Introduction to Shakespeare	3
ENG 224	American Literature I	3
ENG 225	American Literature II	3
ENG 228	Mythology and Folklore	3
ENG 230	Literature of the Southwest	3
ENG 231	Native American Literature	3
ENG 255	Introduction to the English Language	3
ENG 260	Irish Literature	3
ENG 265	Major American Writers	3
ENG 273	Women and Literature	3
GEO 121	World Regional Geography	3
HIS 110	History of the United States 1607-1877	3
HIS 111	History of the United States since 1877	3
HIS 201	History of Women in the United States	3
HIS 229	History of Mexico I	3
HIS 230	History of Mexico II	3
HIS 240	Survey of Western Civilization I	3
HIS 241	Survey of Western Civilization II	3
HIS 242	Survey of Western Civilization III	3
HIS 274	The Holocaust	3
HON 260	The Human Quest for Utopia	3
HUM 101	Humanities in Contemporary Life	3
HUM 110	Introduction to Film	3
HUM 115	Cultural Heritage of the Southwest	3
HUM 116	Middle Eastern Humanities	3
HUM 200	Film History	3
HUM 205	Cultural Studies through the Humanities I	3
HUM 206	Cultural Studies through the Humanities II	3
HUM 210	Foreign Film Classics	3
JRN 101	Introduction to Mass Communications	3
JRN 102 (SUN# JRN 2201)	Essentials of News Writing	3
JRN 201	Essentials of Newspaper Publishing	3
MUS 100	Fundamentals of Music Notation	3
MUS 101	Introduction to Music	3
MUS 109	Orchestra	1
MUS 110	Chorus	1
MUS 111	Band	1
MUS 123	American Popular Music	3
MUS 132	Music Theory I	3
MUS 133	Music Theory II	3
MUS 201	Ensemble	1
MUS 210	Music Theatre Workshop	2
MUS 232 (SUN# MUS 2222)	Music Theory III	3
MUS 233 (SUN# MUS 2223)	Music Theory IV	3
MUS 260	Music Fundamentals through Experience	3
PHI 111 (SUN# PHI 1101)	Introduction to Philosophy	3
PHI 113 (SUN# PHI 1103)	Introduction to Logic and Language	3
PHI 130 (SUN# PHI 1105)	Ethics	3
PHI 201	Philosophies of the East	3
PHI 202	Philosophy of Religion	3
POS 110 (SUN# POS 1110)	American National Government	3
POS 220	Federal and Arizona Constitution	3
POS 230 (SUN# POS 1120)	World Politics	3
POS 240 (SUN# POS 2204)	Comparative Politics	3
PSY 101 (SUN# PSY 1101)	Introduction to Psychology	3
PSY 103	Personality and Adjustment	3
PSY 210	Social Psychology	3
PSY 230	Personality Theories and Research	3
PSY 240	Developmental Psychology	3
PSY 250	Introduction to Psychological Research, Measurements and Statistics	3
PSY 270	Abnormal Psychology	3
PSY 290	Experimental Psychology	4
SOC 101 (SUN# SOC	Introduction to Sociology	3

1101)		
SOC 160 (SUN# SOC 2215)	Ethnic Groups and Minorities	3
SOC 202 (SUN# SOC 2250)	Social Problems	3
SOC 210	Marriage and the Family	3
SOC 212	Women and Men in a Changing Society	3
SOC 230	Human Sexuality and Gender Awareness	3
SPA 101 (SUN# SPA 1101)	Elementary Spanish I	4
SPA 102 (SUN# SPA 1102)	Elementary Spanish II	4
SPA 201 (SUN# SPA 2201)	Intermediate Spanish I	4
SPA 202 (SUN# SPA 2202)	Intermediate Spanish II	4
THE 101	Acting I	3
THE 103	Introduction to Theatre	3
THE 201	Acting II	3
THE 220 (SUN# THE 2220)	Dramatic Structure	3
WLD 114	Welding for Metal Sculpture	3

TECHNOLOGY LITERACY		**3 CREDITS**
CIS 116	Computer Essentials	3
CIS 120 (SUN# CIS 1120)	Introduction to Information Systems	3

DEGREE PROGRAMS

In each of the six degrees—the AA, AAEE, ABUS, AS, AGS, and AAS—only approved general education courses may be used to satisfy the general education requirements.

The AA, AAEE, ABUS, and AS degrees are designed for transfer to Arizona State University, Northern Arizona University, and the University of Arizona; however, not all three state universities offer majors in all areas. Consult with an advisor in the Student Development Center to ensure that the university you choose offers a degree in your area of study and that you select the most appropriate courses for your area of study. Since university requirements vary considerably, it is strongly recommended that you work closely with an academic advisor to plan your coursework.

Associate of Arts Degree

The AA degree is recommended for liberal arts, social science, or fine arts students who plan to transfer to a university. These degrees are designed for transfer to all Arizona public universities; however, not all three state universities offer majors in all areas. Consult with an advisor in the Student Development Center to ensure that the university you choose offers a degree in your area of study. Cochise College has the following Associate of Arts degrees:

Administration of Justice	Major Code - AJS
Communications	Major Code - COM
Computer Science	Major Code - CSC
Early Childhood Care and Education	Major Code - ECE
Economics	Major Code - ECN
English	Major Code - ENG
Exercise Science, Health and Physical Education, Recreation and Wellness	Major Code - HPES
Fine Arts	Major Code - ARTF
General Requirements	Major Code - GENG
Humanities	Major Code - HUM
Journalism and Media Arts	Major Code - JMA
Music	Major Code - MUS
Philosophy	Major Code - PHI
Psychology	Major Code - PSY
Social Sciences	Major Code - SS
Social Work	Major Code - SCW
Theatre Arts	Major Code - THE

GENERAL EDUCATION REQUIREMENTS, AGEC-A		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6
LANGUAGE REQUIREMENT**		**0-16 CREDITS**
CORE CURRICULUM OR ELECTIVES***		**13-29 CREDITS**
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

* General education electives must be chosen from the general education course list.

** University non-English language requirements vary. Check the language requirement for your major.

*** Elective courses must be transferable to the university or universities to which the student plans to transfer.

DEGREE REQUIREMENTS:

- General education requirements for AA degrees consist of 35 credits. Six credits of coursework must be completed to fulfill the intensive writing requirement. Courses that satisfy this requirement are designated [IW]. The cultural and historical or global awareness requirements are satisfied by completing the arts, humanities, and social and behavioral science portion of the AGEC.
- Specific courses are required for the completion of each transfer degree program.
- All courses must be completed with a grade of C or better. A core curriculum course may be used to satisfy a general education requirement; however, the total credits required for the degree remain the same.
- A minimum of 16 credits of any degree granted must be completed in residency at Cochise College.
- A minimum of 8 credits in the AGEC component of any transfer degree must be completed in residency at Cochise College.
- A cumulative grade point average (GPA) of 2.0 or higher is required for any transfer degree.

Associate of Arts Elementary Education Degree

The AAEE degree is designed for elementary education majors who plan to transfer to a four-year university. This degree is designed for transfer to all Arizona public universities. Consult with an advisor in the Student Development Center to ensure you are making the correct choices for your target university.

Associate of Arts Elementary Education — Major Code - EED

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG	3

	1102)	
Mathematics	MAT 142 or higher	3-5
Laboratory sciences†		8
Arts†		3
Humanities†		3
Social and behavioral sciences†		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**		**0-16 CREDITS**
Non-English language		
Second- or fourth-semester proficiency		

CORE CURRICULUM		**21 CREDITS**
Introduction to Education	EDU 201	3
Introduction to Structured English Immersion	EDU 218	OR
English as a Second Language/Structured English Immersion Teaching Methods	EDU 221	3
Introduction to Special Education	EDU 222	3
Cultural Diversity in Education	EDU 226	3
Classroom Relationships	EDU 230	3
Mathematics for Elementary Education Majors I	MAT 154	3
Mathematics for Elementary Education Majors II	MAT 156	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education course list.

**University non-English language requirements vary. Check with your advisor.

***Elective courses must be transferable to the university or universities to which the student plans to transfer.

†Notes:

Laboratory sciences: 8 credits must be taken from two different prefixes. BIO 100, BIO 105, BIO 201 (SUN# BIO 2201), GEO 101, PHY 111 (SUN# PHY 1111), CHM 130 (SUN# CHM 1130), AST 180, and GLG 101 (SUN# GLG 1101) are recommended.

Arts: ART 120 or MUS 260 is recommended.

Humanities: COM 102 (SUN# COM 1100) is highly recommended; ART 107 (SUN# ART 1101), ART 108 (SUN# ART 1102), and MUS 101 are also recommended.

Social and behavioral sciences: POS 220, HIS 110, and HIS 111 are highly recommended. PSY 101 (SUN# PSY 1101), ECN 201 (SUN# ECN 2201) or ECN 202 (SUN# ECN 2202), and PSY 240 are also recommended.

Some students will have more than 64 credits because of varying credits in language, mathematics, and other courses. 64 credits represent the minimum for this degree.

DEGREE REQUIREMENTS:

- General education requirements for the AAEE degree consist of 35 credits. Six credits of coursework must be completed to fulfill the intensive writing requirement. Courses that satisfy this requirement are designated IW. POS 220 is recommended to fulfill three of the six credits. The cultural and historical or global awareness requirements are satisfied by completing the arts, humanities, and social and behavioral science portion of the AGEC.
- Specific courses are required for the completion of each transfer degree program.
- All courses must be completed with a grade of C or better. A core curriculum course may be used to satisfy a general education requirement; however, the total credits required for the degree remain the same.
- A minimum of 16 credits of any degree granted must be completed in residency at Cochise College.
- A minimum of 8 credits in the AGEC component of any transfer degree must be completed in residency at Cochise College.
- A cumulative grade point average (GPA) of 2.0 or higher is required for any transfer degree.

Associate of Business Degree

The ABUS degree is designed to satisfy transfer requirements for business and computer information systems majors. These degrees are designed for transfer to all Arizona public universities. Consult an advisor in the Student Development Center for assistance in degree planning. Cochise College has the following Associate of Business degrees:

Business Administration	Major Code - BUSG
Computer Information Systems	Major Code - CISS

GENERAL EDUCATION REQUIREMENTS, AGEC-B		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 212 or MAT 220 (SUN# MAT 2220)	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
Technology literacy	CIS 120 (SUN# CIS 1120)	3
General education electives*		1-3

CORE CURRICULUM AND ELECTIVES** **29 CREDITS**

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

* General education electives must be chosen from the general education course list.

** Elective courses must be transferable to the university or universities to which the student plans to transfer.

DEGREE REQUIREMENTS:

- General education requirements for ABUS degrees consist of 35 credits. Six credits of coursework must be completed to fulfill the intensive writing requirement. Courses that satisfy this requirement are designated IW. The cultural and historical or global awareness requirements are satisfied by completing the arts, humanities, and social and behavioral science portion of the AGEC.
- Specific courses are required for the completion of each transfer degree program.
- All courses must be completed with a grade of C or better. A core curriculum course may be used to satisfy a general education requirement; however, the total credits required for the degree remain the same.
- A minimum of 16 credits of any degree granted must be completed in residency at Cochise College.
- A minimum of 8 credits in the AGEC component of any transfer degree must be completed in residency at Cochise College.

- A cumulative grade point average (GPA) of 2.0 or higher is required for any transfer degree.

Associate of Science Degree

The AS degree is designed for students interested in transferring to a four-year institution in the areas of natural, physical, or life sciences. These degrees are designed for transfer to all Arizona public universities; however, not all three state universities offer majors in all areas. Consult an advisor in the Student Development Center to ensure that the university you choose offers a degree in your area of study. Cochise College has the following Associate of Science degrees:

Biology	Major Code - BIO
Chemistry	Major Code - CHM
Computer Science	Major Code - CSC
Engineering	Major Code - EGR
General Requirements	Major Code - GENG
Mathematics	Major Code - MAT
Physics	Major Code - PHY

GENERAL EDUCATION REQUIREMENTS, AGEC-S		**35-39 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 220 (SUN# MAT 2220) or higher	3-5
Laboratory sciences	BIO 181 (SUN# BIO 1181) and BIO 182 (SUN# BIO 1182) OR CHM 151 (SUN# CHM 1151) and CHM 152 (SUN# CHM 1152) OR PHY 230 (SUN# PHY 1121) and PHY 231 (SUN# PHY 1131)	8
Arts		3
Humanities		3
Social and behavioral sciences		6
Additional mathematics and/or laboratory sciences*		6-8
CORE CURRICULUM AND ELECTIVES**		**25-29 CREDITS**
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

*Based on your major and after consulting with an advisor, select MAT 231 (SUN# MAT 2230), MAT 241 (SUN# MAT 2241), MAT 252, MAT 262 (SUN# MAT 2262), and/or appropriate laboratory science courses. See http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec for a complete list.

**Elective courses must be transferable to the university or universities to which the student plans to transfer.

DEGREE REQUIREMENTS:

- General education requirements for AS degrees consist of 35-39 credits. Six credits of coursework must be completed to fulfill the intensive writing requirement. Courses that satisfy this requirement are designated [IW]. The cultural and historical or global awareness requirements are satisfied by completing the arts, humanities, and social and behavioral science portion of the AGEC.
- Specific courses are required for the completion of each transfer degree program.
- All courses must be completed with a grade of C or better. A core curriculum course may be used to satisfy a general education requirement; however, the total credits required for the degree remain the same.
- A minimum of 16 credits of any degree granted must be completed in residency at Cochise College.
- A minimum of 8 credits in the AGEC component of any transfer degree must be completed in residency at Cochise College.
- A cumulative grade point average (GPA) of 2.0 or higher is required for any transfer degree.

Associate of General Studies Degree

The AGS degree is designed for students who do not plan to transfer or who plan to transfer to an out-of-state university and want more flexibility in selecting courses. Choosing the AGS and fulfilling Arizona General Education Curriculum (AGEC) requirements will maintain an open door for transferring to an Arizona public university at a later time. The AGS degree is designed to be a general studies degree with no area of emphasis. Students planning to transfer to an out-of-state university should work closely with an academic advisor in choosing their coursework. Whenever possible, working with the catalog of the out-of-state university provides the best planning tool for students. Cochise College has the following Associate of General Studies degrees:

Aviation Dispatch	Major Code - AVD
General Studies	Major Code - AGS
Professional Pilot Technology	Major Code - PPT

GENERAL EDUCATION REQUIREMENTS		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5
Laboratory sciences		4
Arts		3
Humanities		3
Social and behavioral sciences		6
Foreign language (100 or above) or Communications (101 or above)		3-4
General education electives*		6-7
ELECTIVES (AS NEEDED TO COMPLETE 64 CREDITS)**		
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

* General education electives must be chosen from the general education course list or HPE 179.

**Elective courses may be selected from any Cochise College course at the 100 level or higher.

DEGREE REQUIREMENTS:

- The AGS degree requires coursework at the 100 level or higher.
- General education requirements for AGS degrees consist of a minimum of 35 credits. Six credits of coursework must be completed to fulfill the intensive writing requirement. Courses that satisfy this requirement are designated [IW]. The cultural and historical or global awareness requirements are satisfied by completing the arts, humanities, and social and behavioral science courses in the degree.
- All courses must be completed with a grade of C or better.

- An elective course may be used to satisfy a general education requirement; however, the total credits required for the degree remain the same.
- A minimum of 16 credits of any degree granted must be completed in residency at Cochise College.
- A cumulative grade point average (GPA) of 2.0 or higher is required for any AGS degree.

Associate of Applied Science Degree

The AAS degree is most commonly used to prepare students for employment in a specific career upon graduation. Some Arizona universities have responded to the needs in particular technical fields by creating two-plus-two programs enabling a student with an AAS degree to transfer to a university without loss of credit. These degree programs may require lower-division general education courses in the junior and senior years. See an academic advisor for information about the Bachelor of Applied Science (BAS) degrees at Arizona public universities. Cochise College has the following Associate of Applied Science degrees:

Administration of Justice	Major Code - AJS
Agriculture	Major Code - AGR
Automotive Technology	Major Code - ATC
Avionics Technology	Major Code - AVT
Building Construction Technology	Major Code - BCT
Business Management	Major Code - BMT
Cisco and Linux Networking	Major Code - CLN
Computer Information Systems	Major Code - CIS
Computer Programming	Major Code - CPG
Culinary Arts	Major Code - CUL
Cybersecurity	Major Code - CYB
Early Childhood Care and Education	Major Code - ECE
Education	Major Code - ED
Electronics Technology	Major Code - ELT
Engineering	Major Code - EGR
Engineering Technology	Major Code - EGRT
Equine Science and Management	Major Code - EQSM
Fire Science Technology	Major Code - FST
Intelligence Operations Studies	Major Code - IOST
Logistics Supply Chain Management	Major Code - LGS
Media Production Arts	Major Code - MPA
Network Technology	Major Code - NWT
Paramedicine	Major Code - PAR
Professional Administrative Assistant	Major Code - PAA
Professional Pilot Technology	Major Code - PPT
Registered Nurse	Major Code - NUR
Respiratory Therapy	Major Code - RTH
Unmanned Aerial Vehicle Flight Operator	Major Code - UAVO
Unmanned Aircraft Systems and Operations	Major Code - UAS
Unmanned Aircraft Systems Technician	Major Code - UAVT
Welding Technology	Major Code - WLD

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics/laboratory sciences*	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3
CORE CURRICULUM (SEE AREAS OF STUDY)		
ELECTIVES (AS NEEDED TO COMPLETE 64 CREDITS)		
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

* BIO 156 or BIO 160 will satisfy the mathematics/laboratory science requirement for the paramedicine program only.
* NUR 121A and NUR 121B will satisfy the mathematics/laboratory science requirement for the nursing program only.

DEGREE REQUIREMENTS:

- The AAS degree requires coursework at the 100 level or higher.
- General education requirements for AAS degrees consist of a minimum of 18 credits selected from the appropriate general education course list.
- All courses must be completed with a grade of C or better.
- A minimum of 16 credits of any degree granted must be completed in residency at Cochise College.
- A cumulative grade point average (GPA) of 2.0 or higher is required for any AAS degree.

Certificates

Cochise College offers many certificates designed for direct employment. A minimum of 25 percent of the required credits used in the certificate must be completed from Cochise College for each certificate granted. All courses must be completed with a grade of C or better. Cochise College has the following certificates:

Administrative Office Aide	16-18 credits	Major Code - AOA
Aerospace Thermal Fusion	30 credits	Major Code - AETF
Aerospace Welding Technology	18 credits	Major Code - AEWT
Automotive Technology	21 credits	Major Code - ATC
Avionics Technology	57 credits	Major Code - AVT
Basic Logistics Supply Chain Management	24 credits	Major Code - LGSB
Carpentry Technology	23 credits	Major Code - CTC
Chef Garde Manger Apprentice	21 credits	Major Code - CGMA
Chef Patissier – Baker's Apprentice	24 credits	Major Code - BKRA
Cisco Networking	16 credits	Major Code - CNT
Computer Maintenance and Repair	19 credits	Major Code - COMR
Computer-Aided Drafting	27 credits	Major Code - CAD
Electrical Technology	22 credits	Major Code - ET
Emergency Medical Technician (Prep for External Licensure)	8 credits	Major Code - EMT
Entrepreneurship/Small Business Management	30 credits	Major Code - ENTC
Fire Science Technology	18 credits	Major Code - FST
General Business	18 credits	Major Code - GBUS
General Computer-Aided Drafting	18 credits	Major Code - GCAD
General Welding Technology	18 credits	Major Code - GWLD
Hazardous Materials Technician	16 credits	Major Code - HMT
HVAC	20 credits	Major Code - HVAC
Linux System Administrator	19 credits	Major Code - LSA
Mechatronic Systems Operating Technician	16 credits	Major Code - MSOT
Medical Assistant	27 credits	Major Code - MEDA
Medication Assistant (Prep for External	6 credits	Major Code - MAC

Licensure)		
Nursing Assistant (Prep for External Licensure)	6 credits	Major Code - CNA
Paramedicine	49-55 credits	Major Code - PAR
Practical Nurse (Prep for External Licensure)	43 credits	Major Code - LPN
Receptionist	18-19 credits	Major Code - RCP
Sous Chef Apprentice	40-43 credits	Major Code - SCCA
Utility Industry	23 credits	Major Code - UI
Web Developer	26 credits	Major Code - WEBD
Welding Technology	30 credits	Major Code - WLD

Arizona Department of Corrections

Certificates*

Advanced Automotive Technology	15 credits	Major Code - AATC
Advanced Building Construction Technology	16 credits	Major Code - ABCT
Advanced Computer Technology	13 credits	Major Code - ACPT
Air Conditioning Maintenance Technician	16 credits	Major Code - ACM
Automotive Service Manager	12 credits	Major Code - ASM
Basic Automotive Technology	15 credits	Major Code - BATC
Basic Building Construction Technology	13 credits	Major Code - BBCT
Basic Computer Technology	12 credits	Major Code - BCPT
Cabinetmaker	12 credits	Major Code - CAB
Computer Maintenance Technician	15 credits	Major Code - CMT
Telecommunications Cable Installation	12 credits	Major Code - TCI

*Designed for the inmates of the Arizona Department of Corrections in Douglas.

Areas of Study

Administration of Justice

Administration of Justice - Associate of Arts (Major Code - AJS)

The Administration of Justice Associate of Arts degree is designed to prepare the student for a wide variety of criminal justice career fields or for transfer into university degree programs. To ensure seamless university transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences	CHM 128 or FOR 105	4
Laboratory sciences*		4
Arts		3
Humanities		3
Social and behavioral sciences**		6
Essentials of Communication	COM 102 (SUN# COM 1100)	3
General education electives***		1-3

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT†	**0-16 CREDITS**
Non-English language	
Second- or fourth-semester proficiency	

CORE CURRICULUM		**18 CREDITS**
Introduction to Administration of Justice	AJS 101 (SUN# AJS 1101)	3
Substantive Criminal Law	AJS 109	3
Criminology	AJS 225	3
The Police Function	AJS 230	3
The Correction Function	AJS 240	3
Procedural Criminal Law	AJS 260	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)††

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*CHM 128 or FOR 105 is highly recommended.

**COM 204, POS 110 (SUN# POS 1110) or POS 220, and PSY 101 (SUN# PSY 1101), SOC 101 (SUN# SOC 1101), or SOC 160 (SUN# SOC 2215) are recommended.

***General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

†University non-English language requirements vary. Check with your advisor.

††Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. AJS 212, AJS 215, AJS 275, PSY 240, and SOC 207 are recommended. It is highly recommended that students complete a criminal justice-related internship in addition to the 64-unit degree, namely AJS 224 or a related SLE special topics course.

Administration of Justice - Associate of Applied Science (Major Code - AJS)

The Administration of Justice Associate of Applied Science degree is designed to prepare the student for a career in the criminal justice profession or for transfer to a university Bachelor of Applied Science degree program. Furthermore, core courses provide additional training to certified law enforcement and corrections professionals.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts*		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM†		**30 CREDITS**
Select from the following options or see an AJS advisor for evaluation of certified training.		
Introduction to Administration of Justice	AJS 101 (SUN# AJS 1101)	3
Substantive Criminal Law	AJS 109	3
Juvenile Justice Procedures	AJS 212	3
Criminology or Criminal Investigations	AJS 225 or AJS 275	3
The Police Function	AJS 230	3
The Correction Function	AJS 240	3
Procedural Criminal Law	AJS 260	3
Communications	COM 102 (SUN# COM 1100) or COM 204	3
Laboratory sciences	CHM 128 or FOR 105	4
Physical education		2

DEPARTMENT APPROVED ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*POS 220, PSY 101 (SUN# PSY 1101), PSY 270, SOC 101 (SUN# SOC 1101), SOC 160 (SUN# SOC 2215), and SOC 207 are recommended.

**Electives may include, but are not limited to, the following: AJS 204, AJS 215, AJS 225 (or AJS 275), CHM 128 (or FOR 105), PSY 101 (SUN# PSY 1101), PSY 240, non-English language and laboratory science courses.

†Based upon AJS Department evaluation, certified law enforcement training such as POST Academy, Border Patrol Academy, and COTA can be used to fulfill all or part of the core curriculum and elective requirements.

Students pursuing a BAS degree must meet with an advisor to

determine the appropriate general education and core curriculum requirements. Additional credits required in the general education block for BAS transfer may be used to fulfill core curriculum or elective requirements.

Agriculture

Agriculture - Associate of Applied Science (Major Code - AGR)

The Agriculture Associate of Applied Science degree is designed to prepare the student for a career in the agricultural profession or for transfer to a university Bachelor of Applied Science degree program. It focuses on animal science, natural resources, and agribusiness management, and it introduces students to various careers in the field of agriculture.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Introduction to Psychology	PSY 101 (SUN# PSY 1101)	3
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**42 CREDITS**
Introduction to Agriculture	AGR 102	3
Range Management	AGR 105	3
Animal Science	AGR 208	4
Soil Science	AGR 214	4
Agriculture Practicum	AGR 220	4
Principles of Agribusiness	AGR 225	3
Feeds and Feeding	AGR 230	3
Equine Science and Management	AGR 237	4
Livestock Production and Management	AGR 243	3
General Biology (for non-majors)	BIO 100	4
Principles of Management	BUS 143	3
Fundamental Chemistry	CHM 130 (SUN # CHM 1130)	4

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Equine Science and Management - Associate of Applied Science (Major Code - EQSM)

The Equine Science and Management Associate of Applied Science degree is designed to prepare students for a career in equine science and management or for transfer to a university Bachelor of Applied Science degree program. It focuses on equine anatomy and physiology, reproduction, conformation and lameness, stable operations and management, and western equitation.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Introduction to Psychology	PSY 101 (SUN# PSY 1101)	3
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**39 CREDITS**
Agriculture Practicum	AGR 220	4
Equine Science and Management	AGR 237	4
General Biology (for non-majors)	BIO 100	4
Principles of Management	BUS 143	3
Western Equitation I	EQS 105	3
Equine Evaluation	EQS 115	3
Equine and Stable Management I	EQS 120	3
Equine Anatomy and Physiology	EQS 145	3
Western Equitation II	EQS 205	3
Equine Lameness	EQS 215	3
Equine and Stable Management II	EQS 220	3
Equine Reproduction	EQS 245	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Art

The art program at Cochise College has been designed with three goals in mind: (1) as a source of personal growth and self-expression, (2) to fulfill general education requirements for associate or baccalaureate degrees, and (3) to successfully transfer credit to four-year institutions.

Students seeking a specialized career in art should see an art instructor for advisement.

Fine Arts - Associate of Arts (Major Code - ARTF)

The Fine Arts Associate of Arts degree prepares students for transfer to a university program in art. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT** **0-16 CREDITS**

Non-English language		
Second- or fourth-semester proficiency		

CORE CURRICULUM		**15 CREDITS**
Design Fundamentals	ART 103 (SUN# ART 1112)	3
Drawing I	ART 106 (SUN# ART 1111)	3
Survey of World Art: Prehistoric-Gothic	ART 107 (SUN# ART 1101)	3
Survey of World Art: Renaissance through the 20th Century	ART 108 (SUN# ART 1102)	3
Three-Dimensional Design and Sculpture	ART 231 (SUN# ART 1115)	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The Art Department recommends the following: For a two-dimensional emphasis, select ART 216, ART 230, ART 245, ART 280, ART 281, ART 285, ART 286, ART 295, or ART 296; for a three-dimensional emphasis, select ART 270, ART 273, ART 274, ART 275, ART 290, ART 291, ART 293, or ART 294.

Automotive Technology

Automotive Technology - Associate of Applied Science (Major Code - ATC)

The Automotive Technology Associate of Applied Science degree provides students with a working knowledge of the skills required for employment as automotive technicians. It benefits both students seeking marketable skills and experienced automotive technicians looking to upgrade their proficiency and obtain industry certification. Students successfully completing the program will have obtained the knowledge and skills necessary to qualify for all eight segments of the Automotive Service Excellence (ASE) Technician Certification.

GENERAL EDUCATION REQUIREMENT		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**33 CREDITS**
Introduction to Automotive Technology	AUT 101	3
Automotive Electrical Fundamentals	AUT 102	3
Internal Combustion Engines	AUT 103	3
Automotive Brake System	AUT 104	3
Automotive Suspension and Steering Systems	AUT 105	3
Automotive Manual Drive Systems	AUT 106	3
Automotive Parts Specialist	AUT 108	3
Automotive Electrical Systems and Equipment	AUT 201	3
Automatic Transmission/Transaxle Diagnostics and Rebuilding	AUT 204	3
Automobile Heating, Ventilation and Air Conditioning	AUT 205	3
Engine Performance	AUT 206	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Automotive Technology - Certificate (Major Code - ATC)

The Automotive Technology Certificate is designed to provide students with a solid core of skills for employment in the automotive technology industry and prepare them to take the applicable Automotive Service Excellence (ASE) certification tests.

CORE CURRICULUM		**21 CREDITS**
Introduction to Automotive Technology	AUT 101	3
Automotive Electrical Fundamentals	AUT 102	3
Internal Combustion Engines	AUT 103	3
Automotive Brake Systems	AUT 104	3
Automotive Suspension and Steering Systems	AUT 105	3
Automotive Electrical Systems and Equipment	AUT 201	3
Automatic Transmission/Transaxle Diagnostics and Rebuilding	AUT 204	3

TOTAL CERTIFICATE REQUIREMENTS **21 CREDITS**

Aviation

Avionics Technology - Associate of Applied Science (Major Code - AVT)

The Avionics Technology Associate of Applied Science degree prepares students for Federal Communications Commission licensure as avionics technicians, and it trains them to meet demands in the rapidly changing fields of electronics and of aircraft and unmanned aerial systems.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**57 CREDITS**
Introduction to Electronics	AVT 104	7
Avionics Fundamentals to Include Unmanned Aerial Systems	AVT 107	4
Electronic Devices and Circuits I	AVT 112	8
Digital and Microprocessor Fundamentals	AVT 115	8
Electronic Communications to Include Unmanned Aerial Systems	AVT 202	8

Electronic Devices and Circuits II	AVT 205	4
FCC/FAA Regulations	AVT 208	3
Unmanned Aerial Systems and Ground Control Stations	AVT 218	4
Navigation Systems to Include Unmanned Aerial Systems	AVT 220	4
Autopilot and Control Systems to Include Unmanned Aerial Systems	AVT 224	3
Aircraft Radar Systems to Include Unmanned Aerial Systems	AVT 228	4
TOTAL DEGREE REQUIREMENTS		**75-76 CREDITS**

Avionics Technology - Certificate (Major Code - AVT)

The Avionics Technology Certificate prepares students for Federal Communications Commission licensure as avionics technicians, and it trains them to meet demands in the rapidly changing fields of electronics and of aircraft and unmanned aerial systems.

CORE CURRICULUM		**57 CREDITS**
Introduction to Electronics	AVT 104	7
Avionics Fundamentals to Include Unmanned Aerial Systems	AVT 107	4
Electronic Devices and Circuits I	AVT 112	8
Digital and Microprocessor Fundamentals	AVT 115	8
Electronic Communications to Include Unmanned Aerial Systems	AVT 202	8
Electronic Devices and Circuits II	AVT 205	4
FCC/FAA Regulations	AVT 208	3
Unmanned Aerial Systems and Ground Control Stations	AVT 218	4
Navigation Systems to Include Unmanned Aerial Systems	AVT 220	4
Autopilot and Control Systems to Include Unmanned Aerial Systems	AVT 224	3
Aircraft Radar Systems to Include Unmanned Aerial Systems	AVT 228	4
TOTAL CERTIFICATE REQUIREMENTS		**57 CREDITS**

Professional Pilot Technology - Associate of General Studies (Major Code - PPT)

The Professional Pilot Technology Associate of General Studies degree is certified by the Federal Aviation Administration (FAA certificate HR8S200Q) under Part 141 of its regulations. The degree program provides students with the knowledge, skills, and ratings necessary to become competent, qualified professional pilots. Areas of study include single-engine, multi-engine, flight instructor, and airline transport. All ratings are offered, and students may enter the program with or without prior flight training or certificates. For those with prior training, placement in the flight portion of the program will depend upon a skills analysis when they enter the program. A normal course of study will progress from the private pilot certificate to an FAA-certified commercial pilot degree with instrument and multi-engine ratings.

GENERAL EDUCATION REQUIREMENTS		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5
Laboratory sciences		4
Arts		3
Humanities		3
Social and behavioral sciences		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3
Foreign language (100 or higher) or communication		3-4
General education electives*		3-4

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM		**33 CREDITS**
Private Pilot Ground School	PFT 101	5
Solo Flight Preparation	PFT 111	3.5
Cross-Country Navigation	PFT 112	1.5
Private Pilot Certification	PFT 113	1
Commercial Flight I	PFT 121	3
Commercial Pilot Ground School	PFT 130	5
Commercial Flight II	PFT 131	3
Instrument Rating Ground School	PFT 204	5
Instrument Rating Flight I	PFT 214	3.5
Instrument Rating Flight II	PFT 215	1.5
Commercial Flight III	PFT 218	1
TOTAL DEGREE REQUIREMENTS		**68 CREDITS**

Acceptance into the professional pilot program requires an interview with the director of aviation plus completion of admission requirements and departmental acceptance. Admission to Cochise College does not guarantee acceptance into the pilot program.

*General education electives must be chosen from the general education list or HPE 179.

Professional Pilot Technology - Associate of Applied Science (Major Code - PPT)

The Professional Pilot Technology Associate of Applied Science degree is certified by the Federal Aviation Administration (FAA certificate HR8S200Q) under Part 141 of its regulations. The degree program provides students with the knowledge, skills, and ratings necessary to become competent, qualified professional pilots. Areas of study include single-engine, multi-engine, flight instructor, and airline transport. All ratings are offered, and students may enter the program with or without prior flight training or certificates. For those with prior training, placement in the flight portion of the program will depend upon a skills analysis when they enter the program. A normal course of study will progress from the private pilot certificate to an FAA-certified commercial pilot degree with instrument and multi-engine ratings.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3
CORE CURRICULUM		**41-50 CREDITS**
Private Pilot Ground School	PFT 101	5
Solo Flight Preparation	PFT 111	3.5

Cross-Country Navigation	PFT 112	1.5
Private Pilot Certification	PFT 113	1
Commercial Flight I	PFT 121	3
Aviation Weather	PFT 122	3
Commercial Pilot Ground School	PFT 130	5
Commercial Flight II	PFT 131	3
Instrument Rating Ground School	PFT 204	5
Aircraft Systems	PFT 206	3
Instrument Rating Flight I	PFT 214	3.5
Instrument Rating Flight II	PFT 215	1.5
Commercial Flight III	PFT 218	1

MULTI-ENGINE OPTION:

Multi-Engine Rating Ground School	PFT 210	1
Multi-Engine Rating Flight	PFT 211	1

OR

FLIGHT INSTRUCTOR OPTION:

Flight Instructor - Fundamentals Ground School	PFT 230	3
Flight Instructor - Airplane Ground School	PFT 231	5
Flight Instructor - Airplane Stage I	PFT 235	1.5
Flight Instructor - Airplane Stage II	PFT 236	1.5

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64-69 CREDITS**

Aviation Dispatch - Associate of General Studies (Major Code - AVD)

The Aviation Dispatch Associate of General Studies degree provides students with the knowledge and skills required to take the Federal Aviation Administration written and practical examinations, which are necessary for a career as an aircraft dispatcher.

GENERAL EDUCATION REQUIREMENTS		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5
Laboratory sciences		4
Arts		3
Humanities		3
Social and behavioral sciences		6
Foreign language (100 or higher) or communication		3-4
General education electives*		6-7

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM		**26 CREDITS**
Computer Essentials	CIS 116	OR
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3
Private Pilot Ground School	PFT 101	5
Aviation Weather	PFT 122	3
Instrument Rating Ground School	PFT 204	5
Aircraft Systems	PFT 206	3
Aircraft Dispatcher	PFT 222	7

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Acceptance into the professional pilot program requires an interview with the director of aviation plus completion of admission requirements and departmental acceptance. Admission to Cochise College does not guarantee acceptance into the pilot program.

*General education electives must be chosen from the general education list or HPE 179.

Biology

Biology - Associate of Science (Major Code - BIO)

The Biology Associate of Science degree prepares students for transfer to a university program in biological sciences or health professions. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-S)		**35-39 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 220 (SUN# MAT 2220) or higher	3-5
Laboratory sciences	CHM 151 (SUN# CHM 1151) and CHM 152 (SUN# CHM 1152)	8
Arts		3
Humanities		3
Social and behavioral sciences		6
Additional mathematics and/or laboratory sciences*		6-8

Six credits of arts, humanities, or social and behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Based on your major and after consulting with an advisor, select MAT 231 (SUN# MAT 2230), MAT 241 (SUN# MAT 2241), MAT 252, MAT 262 (SUN# MAT 2262), and/or appropriate laboratory science courses. See http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec for a complete list.

CORE CURRICULUM		**11 CREDITS**
General Biology I (for majors)	BIO 181 (SUN# BIO 1181)	4
General Biology II	BIO 182 (SUN# BIO 1182)	4
Elements of Statistics	MAT 167 (SUN# MAT 1160)	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)**

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Building Construction Technology

Building Construction Technology - Associate of Applied Science (Major Code - BCT)

The Building Construction Technology Associate of Applied Science degree is intended for students seeking employment as construction workers, estimators, or construction supervisors, and for experienced construction workers looking to upgrade their skills. It gives students the skills required for the appropriate National Center for Construction Education and Research (NCCER) certification and for most construction apprenticeships.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**37 CREDITS**
Technical Mathematics I	BCT 100	3
Carpentry Fundamentals	BCT 102	4
International Residential Building Codes	BCT 103	3
Electric I	BCT 104	4
Basics in Construction	BCT 108	2
Construction Safety	BCT 109	3
Cabinetmaking	BCT 110	3
Plumbing I	BCT 111	4
Blueprint Reading and Estimating	BCT 127	3
Carpentry Framing and Finishing	BCT 201	4
Carpentry Forms	BCT 202	4

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

HVAC - Certificate (Major Code - HVAC)

The Heating, Ventilation, and Air Conditioning (HVAC) Certificate prepares students for direct employment in the refrigeration industry by teaching the skills required to install, service, troubleshoot, and maintain residential and commercial HVAC systems.

CORE CURRICULUM		**20 CREDITS**
HVAC I	BCT 122	3
HVAC II	BCT 222	3
HVAC III	BCT 223	4
HVAC IV	BCT 225	4
Applied Mathematics	MAT 132	3
Oxyacetylene Welding	WLD 105	3

TOTAL CERTIFICATE REQUIREMENTS **20 CREDITS**

Carpentry Technology - Certificate (Major Code - CTC)

The Carpentry Technology Certificate teaches basic carpentry, framing and finishing, form making, technical mathematics, and blueprint reading skills, all of which prepare students for National Center for Construction Education and Research (NCCER) certification and for eventual employment in the construction trades.

CORE CURRICULUM		**23 CREDITS**
Technical Mathematics I	BCT 100	3
Carpentry Fundamentals	BCT 102	4
International Residential Building Code	BCT 103	3
Basics in Construction	BCT 108	2
Blueprint Reading and Estimating	BCT 127	3
Carpentry Framing and Finishing	BCT 201	4
Carpentry Forms	BCT 202	4

TOTAL CERTIFICATE REQUIREMENTS **23 CREDITS**

Electrical Technology - Certificate (Major Code - ET)

The Electrical Technology Certificate teaches electrical theory, national codes, blueprint reading, and grounding and bonding skills, all of which prepare students for National Center for Construction Education and Research (NCCER) certification and for eventual employment in the construction trades.

CORE CURRICULUM		**22 CREDITS**
Electric I	BCT 104	4
Electrical Theory	BCT 105	3
National Electrical Code I	BCT 106	3
Basics in Construction	BCT 108	2
Blueprint Reading and Estimating	BCT 127	3
Electric II	BCT 204	4
Grounding and Bonding	BCT 220	3

TOTAL CERTIFICATE REQUIREMENTS **22 CREDITS**

Utility Industry - Certificate (Major Code - UI)

The Utility Industry Certificate prepares students for employment as technicians and supervisors in the industry. Students gain an understanding of safety issues that pertain to the industry, and of mathematics, computer, and business communications skills. They then apply these skills in field experience.

CORE CURRICULUM		**23 CREDITS**
Technical Mathematics I	BCT 100	3
Basics in Construction	BCT 108	2
Construction Safety	BCT 109	3
Introduction to the Utility Industry	BCT 112	3
Blueprint Reading and Estimating	BCT 127	3
Field Experience in Building Construction Technology	BCT 224	3

Business Communications	BUS 167	3
Computer Essentials	CIS 116	3
TOTAL CERTIFICATE REQUIREMENTS		**23 CREDITS**

Business

Business Administration - Associate of Business (Major Code - BUSG)

The Business Administration Associate of Business degree is intended for students interested in pursuing a program of study leading to a major in management, marketing, or general business at a four-year school. It not only prepares students to transfer as juniors to a college of business, but it also trains them for direct employment in the business environment.

GENERAL EDUCATION REQUIREMENTS (AGEC-B)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 212 or MAT 220 (SUN# MAT 2220)	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences	ECN 201 (SUN# ECN 2201) and ECN 202 (SUN# ECN 2202)	6
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3
General education electives*		1-3

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM		**27 CREDITS**
Survey of American Business	BUS 109	3
Business Communications	BUS 167	3
Quantitative Methods in Business	BUS 172	3
Financial Accounting	BUS 201 (SUN# ACC 2201)	3
Managerial Accounting	BUS 202 (SUN# ACC 2202)	3
Business Statistics	BUS 219 (SUN# BUS 2201)	3
The Legal Environment of Business	BUS 233	3
Computer Applications	CIS 181	3
Advanced Computer Applications	CIS 281	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Accounting or computer information systems majors should see Transfer Programs ABUS Degree.

Students transferring to Arizona State University, Northern Arizona University, or University of Arizona are required to see a business faculty advisor for specific transfer curriculum to these universities.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Business Management - Associate of Applied Science (Major Code - BMT)

The Business Management Associate of Applied Science degree prepares students for employment in business management or for transfer to a university Bachelor of Applied Science degree program.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Liberal arts	ECN 201 (SUN# ECN 2201) or ECN 202 (SUN# ECN 2202)	3
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**36 CREDITS**
Business Math	BUS 104	3
Survey of American Business	BUS 109	3
Human Resource Management	BUS 123	3
Principles of Management	BUS 143	3
Principles of Marketing	BUS 145	3
Introduction to Accounting	BUS 146	3
Essential Workplace Success Skills	BUS 160	3
Business Communications	BUS 167	3
Starting a Business	BUS 183	3
The Legal Environment of Business	BUS 233	3
Seminar: Trends and Practices in Business	BUS 245	3
Computer Applications	CIS 181	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Recommended electives: Students may consider two co-op credits in BUS 224 to gain workplace experience, and any course with a BUS/CIS/ECN prefix. Transfer AAS students should check with transfer school for transferability.

General Business - Certificate (Major Code - GBUS)

The General Business Certificate provides students with a basic knowledge of business practices. It is designed to improve students' skills and help prepare them for a career in business.

CORE CURRICULUM		**18 CREDITS**
Business Math	BUS 104	3
Survey of American Business	BUS 109	3
Introduction to Accounting	BUS 146	3
Business Communications	BUS 167	3
Starting a Business	BUS 183	3
SELECT ONE OF THE FOLLOWING:		
Computer Essentials	CIS 116	OR
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	OR
Department approved elective		3
TOTAL CERTIFICATE REQUIREMENTS		**18 CREDITS**

Entrepreneurship/Small Business Management - Certificate (Major Code - ENTC)

The Entrepreneurship/Small Business Management Certificate teaches entrepreneurs a wide variety of small business skills. It is designed to develop entrepreneurs and foster economic growth in the community.

CORE CURRICULUM		**30 CREDITS**
Business Math	BUS 104	3
Survey of American Business	BUS 109	3
Introduction to Accounting	BUS 146	3
Business Communications	BUS 167	3
Starting a Business	BUS 183	3
Financial Accounting	BUS 201 (SUN# ACC 2201)	3
The Legal Environment of Business	BUS 233	3
Small Business Management	BUS 283	3
Principles of Macroeconomics	ECN 201 (SUN# ECN 2201)	3
SELECT ONE OF THE FOLLOWING:		
Computer Essentials	CIS 116	OR
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	OR
Department approved elective		3
TOTAL CERTIFICATE REQUIREMENTS		**30 CREDITS**

Chemistry

Chemistry - Associate of Science (Major Code - CHM)

The Chemistry Associate of Science degree prepares students for transfer to a university program in chemistry, biochemistry, chemical engineering, or various health professions. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-S)		**37-39 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 220 (SUN# MAT 2220) or higher	3-5
Laboratory sciences	PHY 230 (SUN# PHY 1121) and PHY 231 (SUN# PHY 1131)	8
Arts		3
Humanities		3
Social and behavioral sciences		6
General Chemistry I	CHM 151 (SUN# CHM 1151)	4
General Chemistry II	CHM 152 (SUN# CHM 1152)	4

Six credits of arts, humanities, or social and behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM		**12 CREDITS**
General Organic Chemistry I	CHM 235 (SUN# CHM 2235)	4
General Organic Chemistry II	CHM 236 (SUN# CHM 2236)	4
Calculus II	MAT 231 (SUN# MAT 2230)	4

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Communications

Communications - Associate of Arts (Major Code - COM)

The Communications Associate of Arts degree prepares students for transfer to a university program in speech and communications. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT** **0-16 CREDITS**

Non-English language
Second- or fourth-semester proficiency

CORE CURRICULUM		**9 CREDITS**
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Public Speaking	COM 110	3
Interpersonal Communications	COM 270 (SUN# COM 1110)	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Computer Information Systems/Computer Science

The Computer Information Systems and Computer Science degrees are designed to prepare students for transfer to four-year colleges and universities. The curriculum provides the foundation for many careers, such as applications programmer, systems programmer, aerospace or engineering programmer, computer engineer and database administrator. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

The various certificates prepare students for employment and/or improved skills in rewarding, technology-related careers.

CIS Department Approved Electives

(PREREQUISITES APPLY.)

Linux Operating System	CIS 128	4
Unix Operating System	CIS 128U	4
Introduction to Programming Logic	CIS 129	1
Programming Logic	CIS 130	3
Introduction to Operating Systems	CIS 140	3
Essentials of Networking	CIS 150	3
Introduction to Information Security	CIS 160	4
Network Security	CIS 161	4
Introduction to Scripting Using Python	CIS 164	4
Applied Technical Writing	CIS 179	3
Computer Applications	CIS 181	3
Internet Essentials	CIS 185	3
C Programming	CIS 204	4
Java Programming	CIS 208	4
Introduction to Visual C#.Net Programming	CIS 217	4
Visual Basic Programming	CIS 218	4
Data Structures	CIS 220	4
Digital Logic	CIS 221	3
Linux System Administration	CIS 229	4
Digital Communications and Network Hardware	CIS 232	4
Microsoft Workstation Operating Systems	CIS 236	4
World Wide Web Programming	CIS 242	3
World Wide Web Graphics	CIS 244	3
Microsoft Server and Active Directory	CIS 245	4
Perl Scripting	CIS 248	3
Database Management	CIS 250	4
Advanced Linux Systems Administration	CIS 259	4
Service and Maintenance of Personal Computers	CIS 260	4
Network Support and Troubleshooting	CIS 262	4
Network Defense	CIS 263	4
Ruby Programming	CIS 264	4
Mobile Security	CIS 267	3
Technical Presentations	CIS 268	3
Systems Analysis	CIS 270	4
Computer Forensics	CIS 275	4
Advanced Computer Applications	CIS 281	3
World Wide Web Development	CIS 287	3
Practical Applications in Cybersecurity	CIS 291	4
Introduction to Programmable Logic Controllers	MCS 102	4

Computer Information Systems - Associate of Business (Major Code - CISS)

The Computer Information Systems Associate of Business degree prepares students for transfer to a university program in computer information systems. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-B)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 212	3
Laboratory sciences		8
Arts		3
Humanities		3
Principles of Macroeconomics	ECN 201 (SUN# ECN 2201)	3
Principles of Microeconomics	ECN 202 (SUN# ECN 2202)	3
Computer Information Systems	CIS 120 (SUN# CIS 1120)	3
General education electives*		3

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM		**29 CREDITS**
Financial Accounting	BUS 201 (SUN# ACC 2201)	3
Managerial Accounting	BUS 202 (SUN# ACC 2202)	3
Business Statistics	BUS 219 (SUN# BUS 2201)	3
The Legal Environment of Business	BUS 233	3
Programming Logic	CIS 130	3
Computer Applications	CIS 181	3
Introduction to Visual C#.NET Programming	CIS 217	4
Systems Analysis	CIS 270	4
Quantitative Methods in Business	BUS 172	3
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

Computer Information Systems - Associate of Applied Science (Major Code - CIS)

The Computer Information Systems Associate of Applied Science degree provides broad preparation for entry into the field of information technology. Students develop essential skills in networking, operating systems, programming, database management, productivity applications, and technical communications.

GENERAL EDUCATION REQUIREMENTS	**18-19 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM **34 CREDITS**

Programming Logic	CIS 130	3
Introduction to Operating Systems	CIS 140	3
Essentials of Networking	CIS 150	3
Applied Technical Writing	CIS 179	3
Computer Applications	CIS 181	3
Internet Essentials	CIS 185	3
Database Management	CIS 250	4
Technical Presentations	CIS 268	3
Advanced Computer Applications	CIS 281	3
World Wide Web Development	CIS 287	3
Field Experience in Computer Information Systems	CIS 294	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*The CIS Department recommends any course from the list of department approved electives.

Computer Programming - Associate of Applied Science (Major Code - CPG)

The Computer Programming Associate of Applied Science degree prepares students to develop software applications that meet the needs of various organizations. Students create solutions to different programming issues across a wide range of modern computing environments.

GENERAL EDUCATION REQUIREMENTS **18-19 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM **46 CREDITS**

Linux Operating System	CIS 128	OR
Microsoft Workstation Operating Systems	CIS 236	4
Programming Logic	CIS 130	3
Introduction to Operating Systems	CIS 140	3
Essentials of Networking	CIS 150	3
Introduction to Information Security	CIS 160	4
Applied Technical Writing	CIS 179	3
Internet Essentials	CIS 185	3
C Programming*	CIS 204	OR
JAVA Programming*	CIS 208	4
Assembler with Architecture	CIS 206	4
Introduction to Visual C#.NET Programming	CIS 217	4
Data Structures (in appropriate language)*	CIS 220C or CIS 220J (SUN# CSC 2205)	4
Digital Logic	CIS 221	3
Systems Analysis	CIS 270	4

TOTAL DEGREE REQUIREMENTS **64-65 CREDITS**

*Students who select C programming must take CIS 204 and CIS 220C. Students who select Java programming must take CIS 208 and CIS 220J (SUN# CSC 2205).

Computer Science - Associate of Science (Major Code - CSC)

The Computer Science Associate of Science degree prepares students for transfer to a university program in computer science. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor and in consultation with a CIS faculty member.

GENERAL EDUCATION REQUIREMENTS
(AGEC-S) **37-39 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 220 (SUN# MAT 2220) or higher	3-5
Laboratory sciences	PHY 230 (SUN# PHY1121) and PHY 231 (SUN# PHY 1131)	8
Arts		3
Humanities		3
Social and behavioral sciences		6
Calculus II	MAT 231 (SUN# MAT 2230)	4
Calculus III	MAT 241 (SUN# MAT 2241)	4

Six credits of arts, humanities, or social and behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM **25 CREDITS**

Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3
Assembler with Architecture	CIS 206	4
Java Programming	CIS 208	4
Data Structures – Java	CIS 220J (SUN# CSC 2205)	4
Digital Logic	CIS 221	3
General Chemistry I	CHM 151 (SUN# CHM 1151)	4
Discrete Mathematics	MAT 227 (SUN# MAT 2227)	3

DEPARTMENT APPROVED ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Computer Science - Associate of Arts (Major Code - CSC)

The Computer Science Associate of Arts degree is designed for students interested in transferring to the University of Arizona

South's computer science program. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor and in consultation with a CIS faculty member.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Calculus I	MAT 220 (SUN# MAT 2220)	5
Laboratory sciences*		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives**		4

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT	**8 CREDITS**
Non-English language Second-semester proficiency	

CORE CURRICULUM		**22 CREDITS**
Discrete Mathematics	MAT 227 (SUN# MAT 2227)	3
Calculus II	MAT 231 (SUN# MAT 2230)	4
Digital Logic	CIS 221	3
Assembler with Architecture	CIS 206	4
JAVA Programming or C Programming	CIS 208 or CIS 204	4
Data Structures – JAVA or C	CIS 220J (SUN# CSC 2205) or CIS 220C	4

TOTAL DEGREE REQUIREMENTS	**65 CREDITS**

*Laboratory sciences must be chosen from the following: CHM 151 (SUN# CHM 1151), CHM 152 (SUN# CHM 1152), GLG 101 (SUN# GLG 1101), BIO 105, BIO 181 (SUN# BIO 1181), BIO 182 (SUN# BIO 1182), PHY 230 (SUN# PHY 1121), and PHY 231(SUN# PHY 1131).

**General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

Cybersecurity - Associate of Applied Science (Major Code - CYB)

The Cybersecurity Associate of Applied Science degree prepares students for employment in the field of information systems security. Major areas of study include network fundamentals, operating systems, network defense, and computer forensics. The courses in this degree combine theory and application in order to develop and implement appropriate information security policies and procedures.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Introduction to Psychology	PSY 101 (SUN# PSY 1101)	3
Liberal arts		3
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**48 CREDITS**
Linux Operating Systems	CIS 128	4
Introduction to Operating Systems	CIS 140	3
Essentials of Networking	CIS 150	3
Introduction to Information Security	CIS 160	4
Network Security	CIS 161	4
Introduction to Scripting Using Python	CIS 164	4
Applied Technical Writing	CIS 179	3
Microsoft Workstation Operating Systems	CIS 236	4
Network Defense	CIS 263	4
Ruby Programming	CIS 264	4
Mobile Security	CIS 267	3
Computer Forensics	CIS 275	4
Practical Applications in Cybersecurity	CIS 291	4

TOTAL DEGREE REQUIREMENTS	**66-67 CREDITS**

Linux System Administrator - Certificate (Major Code - LSA)

The Linux System Administrator Certificate teaches the basic Linux operating skills related to user groups, Perl scripting, and system administration.

CORE CURRICULUM		**19 CREDITS**
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3
Linux Operating System	CIS 128	4
Introduction to Programming Logic	CIS 129	1
Linux System Administration	CIS 229	4
Perl Scripting	CIS 248	3
Advanced Linux System Administration	CIS 259	4

TOTAL CERTIFICATE REQUIREMENTS	**19 CREDITS**

Network Technology - Associate of Applied Science (Major Code - NWT)

The Network Technology Associate of Applied Science degree provides students with the knowledge and skills for immediate employment in the field of computer networking. Major areas of study include network fundamentals, Linux, network security, Active Directory, and network troubleshooting.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Introduction to Psychology	PSY 101 (SUN# PSY 1101)	3
Liberal arts		3
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM	**48 CREDITS**

Linux Operating System	CIS 128	4
Introduction to Operating Systems	CIS 140	3
Essentials of Networking	CIS 150	3
Introduction to Information Security	CIS 160	4
Network Security	CIS 161	4
Applied Technical Writing	CIS 179	3
Linux System Administration	CIS 229	4
Microsoft Workstation Operating Systems	CIS 236	4
Microsoft Server and Active Directory	CIS 245	4
Service and Maintenance of Personal Computers	CIS 260	4
Network Support and Troubleshooting	CIS 262	4
Systems Analysis	CIS 270	4
Field Experience in Computer Information Systems	CIS 294	3
TOTAL DEGREE REQUIREMENTS		**66-67 CREDITS**

Computer Maintenance and Repair - Certificate (Major Code - COMR)

The Computer Maintenance and Repair Certificate teaches the skills necessary to integrate computer hardware in a modern, increasingly-connected, networked environment. It prepares students for jobs as computer or hardware technicians.

CORE CURRICULUM		**19 CREDITS**
Computer Essentials	CIS 116	3
Introduction to Operating Systems	CIS 140	3
Essentials of Networking	CIS 150	3
Internet Essentials	CIS 185	3
Service and Maintenance of Personal Computers	CIS 260	4
Field Experience in Computer Information Systems	CIS 294	3
TOTAL CERTIFICATE REQUIREMENTS		**19 CREDITS**

Web Developer - Certificate (Major Code - WEBD)

The Web Developer Certificate teaches the skills necessary to develop and maintain websites. It includes instruction in computer systems and networks, operating systems and servers, web page design and editing, user interface design, and scripts for interactivity.

CORE CURRICULUM		**26 CREDITS**
Computer Essentials	CIS 116	3
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3
Linux Operating System	CIS 128	4
Introduction to Programming Logic	CIS 129	1
Applied Technical Writing	CIS 179	3
Internet Essentials	CIS 185	3
World Wide Web Programming	CIS 242	3
World Wide Web Graphics	CIS 244	3
World Wide Web Development	CIS 287	3
TOTAL CERTIFICATE REQUIREMENTS		**26 CREDITS**

Cisco and Linux Networking - Associate of Applied Science (Major Code - CLN)

The Cisco and Linux Networking Associate of Applied Science degree prepares students to become networking associates in small to medium-sized businesses. Students develop multi-faceted skills in networking technology and in Linux-based servers that power the Internet.

GENERAL EDUCATION REQUIREMENTS		**18-20 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5
Liberal arts		6
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**37 CREDITS**
Linux Operating System	CIS 128	4
Programming Logic	CIS 130	3
Introduction to Information Security	CIS 160	4
Linux System Administration	CIS 229	4
Perl Scripting	CIS 248	3
Advanced Linux Systems Administration	CIS 259	4
Field Experience in Computer Information Systems	CIS 294	3
Introduction to Cisco Networks	CNT 140	3
Cisco Routing and Switching Essentials	CNT 150	3
Scaling Cisco Networks	CNT 240	3
Connecting Cisco Networks	CNT 250	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*The CIS Department recommends any course from the list of department approved electives.

Cisco Networking - Certificate (Major Code - CNT)

The Cisco Networking Certificate gives a comprehensive overview of networking, from fundamentals to advanced applications and services. It provides students with the knowledge and skills to design networks, and it trains them to install, operate, and maintain secure networks.

CORE CURRICULUM		**16 CREDITS**
Introduction to Information Security	CIS 160	4
Introduction to Cisco Networks	CNT 140	3
Cisco Routing and Switching Essentials	CNT 150	3
Scaling Cisco Networks	CNT 240	3
Connecting Cisco Networks	CNT 250	3
TOTAL CERTIFICATE REQUIREMENTS		**16 CREDITS**

Culinary Arts

Culinary Arts - Associate of Applied Science (Major Code - CUL)

The Culinary Arts Associate of Applied Science degree provides training in the culinary arts for the purpose of direct employment in the field of professional cooking as an assistant to the chef or to the food and beverage director.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	BUS 104, MAT 123, or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**40-43 CREDITS**
Nutrition in Food Service	CUL 105	3
Restaurant Sanitation	CUL 107	3
Food Service Purchasing and Control	CUL 204	3
Cooking Essentials	CUL 215	3
Saucier	CUL 217	3
Breads and Baking Theory	CUL 220	3
Pastry Basics	CUL 221	3
Field Experience in Culinary Arts	CUL 224	1-4
Garde Manger I	CUL 225	3
Garde Manger II	CUL 226	3
Dining Service Management	CUL 242	3
International Cuisine	CUL 275	3
Advanced Techniques in Gourmet Food Preparation I	CUL 280	3
Advanced Techniques in Gourmet Food Preparation II	CUL 281	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Chef Garde Manger Apprentice - Certificate (Major Code - CGMA)

The Chef Garde Manger Apprentice Certificate provides training in all areas of professional garde manger (cold-food preparation) as well as in food and beverage control and restaurant sanitation. It is intended for those already trained in professional cooking who wish to progress into the garde manger area.

CORE CURRICULUM		**21 CREDITS**
Cold Foods and Salad		
Nutrition in Food Service	CUL 105	3
Restaurant Sanitation	CUL 107	3
Food Service Purchasing and Control	CUL 204	3
Garde Manger Specialty		
Cooking Essentials	CUL 215	3
Garde Manger I	CUL 225	3
Garde Manger II	CUL 226	3
International Cuisine	CUL 275	3

TOTAL CERTIFICATE REQUIREMENTS **21 CREDITS**

Chef Patissier – Baker's Apprentice - Certificate (Major Code - BKRA)

The Chef Patissier – Baker's Apprentice Certificate provides training in the principles of professional baking, food and beverage control, and restaurant sanitation. It is intended for those with a background in cooking who wish to become an assistant baker and work in a bakery.

CORE CURRICULUM		**24 CREDITS**
Nutrition in Food Service	CUL 105	3
Restaurant Sanitation	CUL 107	3
Food Service Purchasing and Control	CUL 204	3
Baking Specialty		
Cake Decorating	CUL 101	3
Breads and Baking Theory	CUL 220	3
Pastry Basics	CUL 221	3
Advanced Confections and Pastries I	CUL 222	3
Advanced Confections and Pastries II	CUL 223	3

TOTAL CERTIFICATE REQUIREMENTS **24 CREDITS**

Sous Chef Apprentice - Certificate (Major Code - SCCA)

The Sous Chef Apprentice Certificate provides training in all areas of professional cooking including food and beverage control, restaurant sanitation, meat cutting, gourmet preparations, baking, and garde manger. It also provides field experience in restaurant and dining-service operations.

CORE CURRICULUM		**40-43 CREDITS**
Nutrition in Food Service	CUL 105	3
Restaurant Sanitation	CUL 107	3
Food Service Purchasing and Control	CUL 204	3
Cooking Essentials	CUL 215	3
Saucier	CUL 217	3
Breads and Baking Theory	CUL 220	3
Pastry Basics	CUL 221	3
Field Experience in Culinary Arts	CUL 224	1-4
Garde Manger I	CUL 225	3
Garde Manger II	CUL 226	3
Dining Service Management	CUL 242	3
International Cuisine	CUL 275	3
Advanced Techniques in Gourmet Food Preparation I	CUL 280	3
Advanced Techniques in Gourmet Food Preparation II	CUL 281	3

TOTAL CERTIFICATE REQUIREMENTS **40-43 CREDITS**

Drafting and Design

Computer-Aided Drafting - Certificate (Major Code - CAD)

The Computer-Aided Drafting Certificate teaches computer-aided design (CAD) skills using AutoCAD software. Students generate

2D and 3D technical plans and sketches used by engineers, architects, and other professionals.

CORE CURRICULUM		27 CREDITS
Blueprint Reading and Estimating	BCT 127	3
Computer Essentials	CIS 116	3
Applied Technical Writing	CIS 179	3
Fundamentals of AutoCAD	DFT 150	3
Topics in Drafting	DFT 201	3
Advanced AutoCAD	DFT 250	3
AutoCAD 3D	DFT 270	3
Manufacturing Materials and Processes	GTC 105	3
Applied Mathematics	MAT 132	3
TOTAL CERTIFICATE REQUIREMENTS		**27 CREDITS**

General Computer-Aided Drafting - Certificate (Major Code - GCAD)

The General Computer-Aided Drafting Certificate teaches entry-level computer-aided design (CAD) skills using AutoCAD software.

CORE CURRICULUM		18 CREDITS
Blueprint Reading and Estimating	BCT 127	3
Computer Essentials	CIS 116	3
Fundamentals of AutoCAD	DFT 150	3
Topics in Drafting	DFT 201	3
Advanced AutoCAD	DFT 250	3
Manufacturing Materials and Processes	GTC 105	3
TOTAL CERTIFICATE REQUIREMENTS		**18 CREDITS**

Economics

Economics - Associate of Arts (Major Code - ECN)

The Economics Associate of Arts degree prepares students for transfer to a university program in economics or business. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		35 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 151 (SUN# MAT 1151) or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**		0-16 CREDITS
Non-English language Second- and fourth-semester proficiency		

CORE CURRICULUM		15 CREDITS
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3
Business Statistics	BUS 219 (SUN# BUS 2201)	OR
Elements of Statistics	MAT 167 (SUN# MAT 1160)	3
Principles of Macroeconomics	ECN 201 (SUN# ECN 2201)	3
Principles of Microeconomics	ECN 202 (SUN# ECN 2202)	3
Calculus for Business	MAT 212	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Education

Associate of Arts Elementary Education (Major Code - EED)

The Associate of Arts Elementary Education (AAEE) degree is designed to serve two primary groups: (1) future teachers seeking entrance into teacher education programs through transfer to one of the Arizona public universities, and (2) teacher aides (current and new) seeking to comply with federal regulations. This degree allows students to complete their Arizona General Education Curriculum (AGEC) requirements and to take a number of teacher education and/or early childhood education courses. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		35 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences†		8
Arts†		3
Humanities†		3
Social and behavioral sciences†		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**		0-16 CREDITS
Non-English language Second- or fourth-semester proficiency		

CORE CURRICULUM		21 CREDITS
Introduction to Education	EDU 201	3
Introduction to Structured English Immersion	EDU 218	OR

English as a Second Language/Structured English Immersion Teaching Methods	EDU 221	3
Introduction to Special Education	EDU 222	3
Cultural Diversity in Education	EDU 226	3
Classroom Relationships	EDU 230	3
Mathematics for Elementary Education Majors I	MAT 154	3
Mathematics for Elementary Education Majors II	MAT 156	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education course list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
†Notes:
Laboratory sciences: 8 credits must be taken from two different prefixes. BIO 100, BIO 105, BIO 201 (SUN# BIO 2201), GEO 101, PHY 111 (SUN# PHY 1111), CHM 130 (SUN# CHM 1130), AST 180, and GLG 101 (SUN# GLG 1101) are recommended.
Arts: ART 120 or MUS 260 is recommended.
Humanities: COM 102 (SUN# COM 1100) is highly recommended; ART 107 (SUN# ART 1101), ART 108 (SUN# ART 1102), and MUS 101 are also recommended.
Social and behavioral sciences: POS 220, HIS 110, and HIS 111 are highly recommended. PSY 101 (SUN# PSY 1101), ECN 201 (SUN# ECN 2201) or ECN 202 (SUN# ECN 2202), and PSY 240 are also recommended.
Some students will have more than 64 credits because of varying credits in language, mathematics, and other courses. 64 credits represent the minimum for this degree.

Early Childhood Care and Education - Associate of Arts (Major Code - ECE)

The Early Childhood Care and Education Associate of Arts degree prepares students for transfer to a university program in the care and education of young children. It offers in-depth child development theory, practical applications in the workplace, and comprehensive skills for working with children and their families. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts	ART 120 or MUS 260	3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT** **0-16 CREDITS**

Non-English language
Second- or fourth-semester proficiency

CORE CURRICULUM		**24 CREDITS**
SELECT TWO OF THE FOLLOWING THREE:		6
Children's Language Development	ECE 155	
Children's Literature and Children's Literacy	ECE 156	
Early Childhood Growth and Development	ECE 160	
Introduction to Early Childhood Care and Education	ECE 150	3
Introduction to Education	EDU 201	3
Introduction to Special Education	EDU 222	3
Cultural Diversity in Education	EDU 226	3
Mathematics for Elementary Education Majors I	MAT 154	3
Mathematics for Elementary Education Majors II	MAT 156	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS) ***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
Note: Some students will have more than 64 credits because of varying credits in language, math, and other courses; 64 credits represent the minimum for this degree.

Early Childhood Care and Education - Associate of Applied Science (Major Code - ECE)

The Early Childhood Care and Education Associate of Applied Science degree is designed for those seeking to comply with industry regulations in child care and for those wishing to transfer to a university Bachelor of Applied Science degree program. Completion of this degree does not guarantee state licensure or certification. Students must obtain licensure through appropriate licensing agencies.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	BUS 104, MAT 123, or higher	3-4
Liberal arts*		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**33 CREDITS**
Introduction to Early Childhood Care and Education	ECE 150	3
Observation, Behavior and Guidance	ECE 152	3
Children's Language Development	ECE 155	3
Health, Safety and Nutrition for Young Children	ECE 158	3
Early Childhood Growth and Development	ECE 160	3
Understanding Families, Community and Diversity	ECE 161	3
Curriculum Development for Early	ECE 170	3

Childhood Education		
Teaching Strategies for Early Childhood Education	ECE 172	3
Administration of Early Childhood Care and Education Programs	ECE 173	3
Introduction to Education	EDU 201	3
Classroom Relationships	EDU 230	3

ELECTIVES (AS NEEDED TO COMPLETE 64 CREDITS)**

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Select two of the following liberal arts courses: ART 103 (SUN# ART 1112), ART 120, COM 102 (SUN# COM 1100), MUS 101, PHI 130 (SUN# PHI 1105), PSY 101 (SUN# PSY 1101), SOC 101 (SUN# SOC 1101), SOC 160 (SUN# SOC 2215), and THE 103.

**Recommended electives include, but are not limited to, the following: ECE 174, SOC 160 (SUN# SOC 2215), COM 204, PSY 240, EDU 222, and EDU 226. Students should consult an advisor for course selection.

Education - Associate of Applied Science (Major Code - ED)

The Education Associate of Applied Science degree provides students affiliated with the military with an understanding of the fundamental principles and techniques of learner-centric instruction. Emphasis is on the skills used in training students in military subjects such as intelligence, electronics, and unmanned aerial systems.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		**16 CREDITS**
Foundations of Instructional Techniques	EDU 203	3
Learner-Centered Instruction	EDU 204	3
Theoretical Dynamics of Instruction	EDU 205	3
Mentoring Practicum	EDU 206	4
Instructional Design for Adult Education	EDU 207	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

THE EDUCATION ASSOCIATE OF APPLIED SCIENCE DEGREE IS RUN THROUGH THE MOS CREDENTIALING PROGRAM ON FORT HUACHUCA AND DOES NOT FOLLOW STANDARD SEMESTER SCHEDULING.

Electronics

Electronics Technology - Associate of Applied Science (Major Code - ELT)

The Electronics Technology Associate of Applied Science degree prepares students for employment in the field of general electronics. Focus is on the study of electricity, analog and digital devices and circuits, measurements, electronic communications, microprocessors, and microcomputers. Students design electromechanical systems and experiment with them.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	ELT 110, MAT 123, or higher	3-4
Liberal arts		6
Technology literacy	CIS 116	3

CORE CURRICULUM		**31 CREDITS**
Introduction to DC Circuits	ELT 105	3
Introduction to AC Circuits	ELT 106	4
Electronic Circuits and Systems	ELT 125	4
Digital Circuits and Systems	ELT 133	4
Semiconductors and Transistors	ELT 222	4
Communication Electronics I	ELT 245	4
Communication Electronics II	ELT 247	4
Microprocessors and Microcomputers	ELT 265	4

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

THE ELECTRONICS ASSOCIATE OF APPLIED SCIENCE DEGREE IS RUN THROUGH THE MOS CREDENTIALING PROGRAM ON FORT HUACHUCA AND DOES NOT FOLLOW STANDARD SEMESTER SCHEDULING.

Engineering

Engineering - Associate of Science (Major Code - EGR)

The Engineering Associate of Science degree prepares students for transfer to a university program in a wide variety of engineering majors. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-S)		**38 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Calculus I	MAT 220 (SUN# MAT 2220)	5
Laboratory sciences	CHM 151 (SUN# CHM 1151) and CHM 152 (SUN#	8

	CHM 1152)	
Arts		3
Humanities		3
Social and behavioral sciences		6
Calculus III	MAT 241 (SUN# MAT 2241)	4
Differential Equations	MAT 262 (SUN# MAT 2262)	3

Six credits of arts, humanities, or social and behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM		**22 CREDITS**
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Principles of Engineering	EGR 102 (SUN# EGR 1102)	3
Programming for Engineering and Science	EGR 122	4
Calculus II	MAT 231 (SUN# MAT 2230)	4
Physics with Calculus I	PHY 230 (SUN# PHY 1121)	4
Physics with Calculus II	PHY 231 (SUN# PHY 1131)	4

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Engineering - Associate of Applied Science (Major Code - EGR)

The Engineering Associate of Applied Science degree prepares students for employment in a variety of engineering fields or for university transfer.

GENERAL EDUCATION REQUIREMENTS		**21 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 187 (SUN# MAT 1187) or higher	5
Liberal arts	ECN 201 (SUN# ECN 2201) or ECN 202 (SUN# ECN 2202)	3
Liberal arts		3
Programming for Engineering and Science	EGR 122	4

CORE CURRICULUM		**27 CREDITS**
Principles of Engineering	EGR 102 (SUN# EGR 1102)	3
Calculus I	MAT 220 (SUN# MAT 2220)	5
Calculus II	MAT 231 (SUN# MAT 2230)	4
Calculus III	MAT 241 (SUN# MAT 2241)	4
Differential Equations	MAT 262 (SUN# MAT 2262)	3
Physics with Calculus I	PHY 230 (SUN# PHY 1121)	4
Physics with Calculus II	PHY 231 (SUN# PHY 1131)	4

DEPARTMENT APPROVED ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

General Chemistry I	CHM 151 (SUN# CHM 1151)	4
General Chemistry II	CHM 152 (SUN# CHM 1152)	4
Digital Logic	CIS 221	3
Electrical Circuits*	EGR 202	4
Statics**	EGR 210	3
Mechanics of Materials***	EGR 213	3
Dynamics**	EGR 214	3
Introduction to Linear Algebra	MAT 252	3

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Civil and electrical engineering emphasis
**Civil and mechanical engineering emphasis
***Civil engineering emphasis

Engineering Technology - Associate of Applied Science (Major Code - EGRT)

The Engineering Technology Associate of Applied Science degree is designed to prepare students for a career in electronics, industrial maintenance and robotics, or engineering technology.

GENERAL EDUCATION REQUIREMENTS		**20 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 187 (SUN# MAT 1187) or higher	5
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Principles of Macroeconomics	ECN 201 (SUN# ECN 2201)	3
Computer Essentials	CIS 116	3

CORE CURRICULUM		**45 CREDITS**
Business Communications	BUS 167	3
Field Experience in Cooperative Education	CED 224	2
Fundamental Chemistry	CHM 130 (SUN# CHM 1130)	4
Principles of Engineering	EGR 102 (SUN# EGR 1102)	3
Applied Mathematics	MAT 132	3
Mechatronic Systems Electrical Components	MCS 101	4
Introduction to Programmable Logic Controllers	MCS 102	4
Mechatronic Systems Mechanical Components	MCS 103	4
General Physics I	PHY 111 (SUN# PHY 1111)	4
General Physics II	PHY 112 (SUN# PHY 1112)	4

ELECTRICAL EMPHASIS:

Essentials of Networking	CIS 150	3
Computer Applications	CIS 181	3
(Electro)Pneumatic and Hydraulic	MCS 104	4

Control Circuits		

MECHANICAL EMPHASIS:		
Fundamentals of AutoCAD	DFT 150	3
Advanced AutoCAD	DFT 250	3
Programming for Engineering and Science	EGR 122	4
TOTAL DEGREE REQUIREMENTS		**65 CREDITS**

Mechatronic Systems Operating Technician - Certificate (Major Code - MSOT)

The Mechatronic Systems Operating Technician Certificate provides training for employment as a mechatronic systems operating technician and teaches the skills needed by a machine operator in a complex system. Prepares students to take the internationally recognized certification, Level 1 - Siemens Certified Mechatronic Systems Assistant.

CORE CURRICULUM		**16 CREDITS**
Mechatronic Systems Electrical Components	MCS 101	4
Introduction to Programmable Logic Controllers	MCS 102	4
Mechatronic Systems Mechanical Components	MCS 103	4
(Electro)Pneumatic and Hydraulic Control Circuits	MCS 104	4
TOTAL CERTIFICATE REQUIREMENTS		**16 CREDITS**

English

English - Associate of Arts (Major Code - ENG)

The English Associate of Arts degree prepares students for transfer to a university program in literature or written communication. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities*		3
Social and behavioral sciences		6
General education electives**		4-6
Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.		
LANGUAGE REQUIREMENT*		**0-16 CREDITS**
Non-English language		
Second- or fourth-semester proficiency		
CORE CURRICULUM		**12 CREDITS**
British Literature I	ENG 220	3
British Literature II	ENG 221	3
200-level literature course****		3
SELECT ONE OF THE FOLLOWING:		
American Literature I	ENG 224	OR
American Literature II	ENG 225	OR
Major American Writers	ENG 265	3
ELECTIVES (AS NEEDED TO COMPLETE 64 CREDITS)**		
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

*The English Department recommends a 200-level literature course.

**General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

***University non-English language requirements vary. Check with your advisor.

****Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The degree requires one of the following American literature courses: ENG 224, ENG 225, or ENG 265. The English Department recommends that students satisfy elective credits by selecting ENG 222, ENG 224, ENG 225, ENG 228, ENG 230, ENG 231, ENG 260, ENG 265, and ENG 273.

Exercise Science, Health and Physical Education, Recreation and Wellness

Exercise Science, Health and Physical Education, Recreation and Wellness - Associate of Arts (Major Code - HPES)

The Exercise Science, Health and Physical Education, Recreation and Wellness Associate of Arts degree is intended for students interested in fitness, recreation, or sports, and it is designed for transfer into university degree programs in physical education teaching and/or athletic coaching. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142, MAT 151 (SUN# MAT 1151), or higher	3-5
Laboratory sciences	BIO 156 or BIO 181 (SUN# BIO 1181)	4
Laboratory sciences		4
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**		**0-16 CREDITS**
Non-English language Second- or fourth-semester proficiency		
CORE CURRICULUM		**8 CREDITS**
Human Anatomy and Physiology I	BIO 201 (SUN# BIO 2201)	4
Human Anatomy and Physiology II	BIO 202 (SUN# BIO 2202)	4
ELECTIVES (AS NEEDED TO COMPLETE 64 CREDITS)* **		
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

**University non-English language requirements vary. Check with your advisor.

***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Fire Science Technology

Fire Science Technology - Associate of Applied Science (Major Code - FST)

The Fire Science Technology Associate of Applied Science degree prepares students for a career in the fire service. Coursework covers safety, fitness, wildland firefighting, fire rescue and hazmat operations, ladder and hose procedures, fire service apparatus, and emergency medical and support services. Students acquire field experience in fire science technology. Emphasis is on applied learning.

GENERAL EDUCATION REQUIREMENTS		**18-19 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3
CORE CURRICULUM		**37-39 CREDITS**
Emergency Medical Technician	EMT 174	8
Firefighter Safety and Entry-Level Operations	FST 101	6
Fire Rescue Operation	FST 102	4
Firefighter Ground Ladders and Hose Procedures	FST 103	4
Fire Support Services	FST 104	4
Firefighter Fitness I	FST 113	3
Firefighter Fitness II	FST 114	3
Fire Service Apparatus Driver/Operator	FST 115	3
Field Experience in Fire Science Technology	FST 224	2-4
ELECTIVES (AS NEEDED TO COMPLETE 64 CREDITS)		
TOTAL DEGREE REQUIREMENTS		**64 CREDITS**

Fire Science Technology - Certificate (Major Code - FST)

The Fire Science Technology Certificate prepares students for a career in the fire service. Coursework covers safety, wildland firefighting, fire rescue and hazmat operations, ladder and hose procedures, and support services. Emphasis is on applied learning.

CORE CURRICULUM		**18 CREDITS**
Firefighter Safety and Entry-Level Operations	FST 101	6
Fire Rescue Operation	FST 102	4
Firefighter Ground Ladders and Hose Procedures	FST 103	4
Fire Support Services	FST 104	4
TOTAL CERTIFICATE REQUIREMENTS		**18 CREDITS**

Hazardous Materials Technician - Certificate (Major Code - HMT)

The Hazardous Materials Technician Certificate is designed to train active firefighters for Hazardous Materials Emergency Response Technician State Certification (OSHA 1910.120 and NFA 472) Safety and Entry-Level Operations.

CORE CURRICULUM		**16 CREDITS**
Hazmat Technician I	FST 121	6
Hazmat Technician II	FST 222	5
Hazmat Technician III	FST 223	5
TOTAL CERTIFICATE REQUIREMENTS		**16 CREDITS**

General Requirements

General Requirements - Associate of Arts (Major Code - GENG)

The General Requirements Associate of Arts degree is designed for students interested in transferring to a four-year institution with no specific area of emphasis.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**		**0-16 CREDITS**
Non-English language Second- or fourth-semester proficiency		

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

General Requirements - Associate of Science (Major Code - GENG)

The General Requirements Associate of Science degree is designed for students interested in transferring to a four-year institution with no specific area of emphasis.

GENERAL EDUCATION REQUIREMENTS (AGEC-S)		**35-39 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 220 (SUN# MAT 2220) or higher	3-5
Laboratory sciences	BIO 181 (SUN# BIO 1181) and BIO 182 (SUN# BIO 1182)	OR
	CHM 151 (SUN# CHM 1151) and CHM 152 (SUN# CHM 1152)	OR
	PHY 230 (SUN# PHY 1121) and PHY 231 (SUN# PHY 1131)	8
Arts		3
Humanities		3
Social and behavioral sciences		6
Additional mathematics and/or laboratory sciences*		6-8

Six credits of arts, humanities, or social and behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
*Based on your major and after consulting with an advisor, select MAT 231 (SUN# MAT 2230), MAT 241 (SUN# MAT 2241), MAT 252, MAT 262 (SUN# MAT 2262), and/or appropriate laboratory sciences courses. See http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec for a complete list.

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)** **25-29 CREDITS**

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

General Studies

General Studies - Associate of General Studies (Major Code - AGS)

The General Studies Associate of General Studies degree is designed to provide general knowledge with no specific area of emphasis.

GENERAL EDUCATION REQUIREMENTS		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5
Laboratory sciences		4
Arts		3
Humanities		3
Social and behavioral sciences		6
Foreign language (100 or above) or Communications (101 or above)		3-4
General education electives*		6-7

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)**

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list or HPE 179.
**Elective courses may be selected from any Cochise College course at the 100 level or higher.

Health Sciences

Emergency Medical Technician - Certificate (Major Code - EMT)

The Emergency Medical Technician Certificate provides a study of anatomy and physiology, signs and symptoms of illness and injury, patient assessment, procedures associated with the provision of emergency medical care, triage, basic life support systems, and basic legal responsibilities. Equips students with the knowledge and skills required by the National Registry of Emergency Medical Technicians (NREMT) and the Arizona Department of Health Services – Bureau of Emergency Medical Services (ADHS-BEMS) to practice as an Emergency Medical Technician. Students desiring NREMT/ADHS-BEMS certification must complete the state-required number of clinical experience hours with an Emergency Medical Service provider of out-of-hospital emergency care. Meets the ADHS-BEMS guidelines and is approved by the state of Arizona and the National Registry of EMTs.

Medical Direction: Arizona Certified EMTs are authorized to provide treatment, perform procedures, and utilize skills—as defined by the 2009 National EMS Education Standards—only under the medical control of an approved medical director or certified base hospital.

CORE CURRICULUM		**8 CREDITS**
Emergency Medical Technician	EMT 174	8

TOTAL CERTIFICATE REQUIREMENTS	8 CREDITS

Medical Assistant - Certificate (Major Code - MEDA)

The Medical Assistant Certificate provides training for entry-level employment in a medical practice setting, with emphasis on the routine administrative and clinical tasks required in the day-to-day operation of offices and clinics of health professionals. It introduces students to telephone techniques and other front office functions such as filing and coding insurance claims, scheduling patients, and keeping electronic medical records. It also introduces them to back office skills that include taking vital signs, assisting with electrocardiograms and other special procedures, using medical terminology, and administering medication. The certificate's externship course offers practical experience in a medical office setting. Prior to certificate completion, students take the Medical Assistant certification examination to become certified as Registered Medical Assistants.

CORE CURRICULUM*		27 CREDITS
Introduction to Human Anatomy and Physiology	BIO 160	4
Medical Terminology	HLT 101	2
CPR and First Aid**	HLT 111	1
Medical Assistant I	HLT 139	8
Medical Assistant II	HLT 140	12
TOTAL CERTIFICATE REQUIREMENTS		**27 CREDITS**

*See course descriptions for prerequisites and other requirements.
**HLT 111 must be taken at Cochise College or at an accredited college or university.

Paramedicine - Associate of Applied Science (Major Code - PAR)

The Paramedicine Associate of Applied Science degree prepares the student to become a Nationally Registered Paramedic. Paramedics render basic and advanced medical treatment before and during patient transport to a medical facility and they assess and treat a wide variety of medical emergencies. Paramedics work for fire departments, law enforcement agencies, private ambulance services, industrial companies, clinics, and hospitals.

Admission into the program requires a separate application. Prior to enrollment in the paramedicine program, all students must pass a computer-based entrance examination.

GENERAL EDUCATION REQUIREMENTS		19 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics/laboratory sciences	BIO 156 or BIO 160	4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		49-55 CREDITS
Paramedicine I	PMD 101	6*
Paramedicine II	PMD 201	7
Paramedicine III	PMD 202	7
Paramedicine IV	PMD 203	10
Paramedicine V	PMD 204	10
Paramedicine VI	PMD 205	9
Paramedicine VII	PMD 206	6
TOTAL DEGREE REQUIREMENTS		**68-74 CREDITS**

*The program coordinator may waive PMD 101 for students who meet the course requirements.

Paramedicine - Certificate (Major Code - PAR)

The Paramedicine Certificate prepares the student to become a Nationally Registered Paramedic. Paramedics render basic and advanced medical treatment before and during patient transport to a medical facility and they assess and treat a wide variety of medical emergencies. Paramedics work for fire departments, law enforcement agencies, private ambulance services, industrial companies, clinics, and hospitals.

Admission into the program requires a separate application. Prior to enrollment in the paramedicine program, all students must pass a computer-based entrance examination.

CORE CURRICULUM		49-55 CREDITS
Paramedicine I	PMD 101	6*
Paramedicine II	PMD 201	7
Paramedicine III	PMD 202	7
Paramedicine IV	PMD 203	10
Paramedicine V	PMD 204	10
Paramedicine VI	PMD 205	9
Paramedicine VII	PMD 206	6
TOTAL CERTIFICATE REQUIREMENTS		**49-55 CREDITS**

*The program coordinator may waive PMD 101 for students who meet the course requirements.

Respiratory Therapy - Associate of Applied Science (Major Code - RTH)

The Respiratory Therapy Associate of Applied Science degree prepares the student to become an allied health professional specializing in the diagnosis, treatment, and care of patients suffering from cardiopulmonary disease. Upon completion of the program, the student is eligible to take national registry examinations to be certified as a respiratory therapist.

Year 1 Program Prerequisites:

FALL AND SPRING SEMESTERS		27-28 CREDITS
Introductory Biology for Allied Health	BIO 156	4
Introduction to Human Anatomy and Physiology	BIO 160	4
Microbiology	BIO 205 (SUN# BIO 2205)	4
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts*		3
Liberal arts*		3

Year 2 Freshman:

FIRST SEMESTER		**16 CREDITS**
Introduction to Respiratory Care	RTH 110	4
Respiratory Physiology	RTH 112	4
Basic Therapeutics	RTH 121	4
Basic Assessment and Monitoring	RTH 123	4
SECOND SEMESTER		**13 CREDITS**
Pharmacology for Respiratory Care	RTH 124	3
Principles of Mechanical Ventilation	RTH 162	3
Clinical Procedures I	RTH 235	4
Cardiorespiratory Disorders I	RTH 246	3

Year 3 Sophomore:

THIRD SEMESTER		**13 CREDITS**
Critical Care Therapeutics	RTH 241	4
Advanced Assessment and Monitoring	RTH 243	4
Clinical Procedures II	RTH 245	5
FOURTH SEMESTER		**14 CREDITS**
Advanced and Specialty Therapeutics	RTH 251	5
Clinical Procedures III	RTH 255	5
Cardiorespiratory Disorders II	RTH 256	3
Clinical Applications and Professional Development	RTH 257	1

TOTAL DEGREE REQUIREMENTS **83-84 CREDITS**

*Select PSY 101 (SUN# PSY 1101), PSY 103, PSY 218, PSY 230, PSY 240, PSY 270, SOC 101 (SUN# SOC 1101), SOC 160 (SUN# SOC 2215), SOC 170, SOC 202 (SUN# SOC 2250), SOC 207, or SOC 230.

Humanities

Humanities - Associate of Arts (Major Code - HUM)

The Humanities Associate of Arts degree prepares students for transfer to a university program in the humanities. It comprises a study of history, art, philosophy, music, literature, and film, all in a cultural context. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**	**16 CREDITS**
Non-English language Fourth-semester proficiency	

CORE CURRICULUM		**6 CREDITS**
Cultural Studies through the Humanities I	HUM 205	3
Cultural Studies through the Humanities II	HUM 206	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

**University non-English language requirements vary. Check with your advisor.

***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The Humanities Department recommends ART 107 (SUN# ART 1101), ART 108 (SUN# ART 1102), ENG 220, ENG 221, ENG 228, HIS 240, HIS 241, HIS 242, HUM 101, HUM 110, HUM 115, HUM 200, and HUM 210.

Intelligence Operations Studies

Contact an advisor at the Fort Huachuca Center regarding the following areas of concentration:

Common Ground Station Operator	(Major Code - IOST/CGSO)
Counterintelligence	(Major Code - IOST/CI)
Electronic Intelligence Analyst	(Major Code - IOST/EIA)
General Intelligence	(Major Code - IOST/GIO)
Ground Surveillance Systems Operator	(Major Code - IOST/GSO)
Human Intelligence Collector	(Major Code - IOST/HIC)
Imagery Analyst	(Major Code - IOST/IMA)
Intelligence Analyst	(Major Code - IOST/IA)
Linguist	(Major Code - IOST/LIN)
Military Intelligence Systems Maintainer	(Major Code - IOST/MISM)
Morse Interceptor	(Major Code - IOST/MI)
Multi-Sensor Operator	(Major Code - IOST/MSO)
Signal Collector Analyst	(Major Code - IOST/SCA)
Signals Collection/Id Analyst	(Major Code - IOST/SCIA)
Signals Intelligence Analyst	(Major Code - IOST/SIA)

Intelligence Operations Studies - Associate of Applied Science (Major Code - IOST)

The Intelligence Operations Studies Associate of Applied Science degree addresses career and educational goals of students currently in or preparing for employment in the intelligence field. This degree is intended for current or former military intelligence specialists and for students who are interested in intelligence operations studies.

Military credit toward this degree may be based on skill level, training, and/or coursework from military schools attended. See an academic advisor for details.

GENERAL EDUCATION REQUIREMENTS		**18-20 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5

Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120	3

CORE CURRICULUM* **21 CREDITS**

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Any 21 credits from the Cochise College Intelligence Operations Studies (IOS)/Military Intelligence Operations (MIO) course offerings. See schedule for a list of available courses.
Note: A minimum of nine credits, from the 64 total credits in this degree, must be completed with 200-level courses.

Journalism and Media Arts

Journalism and Media Arts - Associate of Arts (Major Code - JMA)

The Journalism and Media Associate of Arts degree prepares students for transfer to a university program in journalism and media arts. Students gain practical experience in news writing by contributing to the online college newspaper. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A) **35 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT** **0-16 CREDITS**

Non-English language
Second- or fourth-semester proficiency

CORE CURRICULUM **9 CREDITS**

Introduction to Mass Communications	JRN 101	3
Essentials of News Writing	JRN 102 (SUN# JRN 2201)	3
Public Speaking	COM 110	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

Computer Essentials	CIS 116	3

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Media Production Arts - Associate of Applied Science (Major Code - MPA)

The Media Production Arts Associate of Applied Science degree prepares students for entry-level employment as media specialists. Students gain the knowledge and skills necessary to seek careers in media industries such as broadcasting, music and sound production, marketing, and public relations.

GENERAL EDUCATION REQUIREMENTS **18-19 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Essentials of Communication	COM 102 (SUN# COM 1100)	3
Introduction to Mass Communications	JRN 101	3
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM **35-40 CREDITS**

Electronic Commerce	BUS 285	3
Introduction to Programming Logic	CIS 129	1
Internet Essentials	CIS 185	3
World Wide Web Graphics	CIS 244	3
World Wide Web Development	CIS 287	3
Public Speaking	COM 110	3
Digital Imaging I	DMA 110	3
Computer Animation I	DMA 111	3
Graphic Design I	DMA 260	3
Digital Video Production	DMA 262	3
Digital Photography	DMA 266	3
Essentials of News Writing	JRN 102 (SUN# JRN 2201)	3
Field Experience in Communication and/or Media Technology	JRN 224	1-6

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Department recommended electives include DMA 261, DMA 263, and DMA 267.
NOTE: Students pursuing a BAS degree must meet with an advisor to determine the appropriate general education and core curriculum requirements. Additional credits required in the general education block for BAS transfer may be used to fulfill core curriculum or elective requirements.

Logistics

Logistics Supply Chain Management - Associate of Applied Science (Major Code - LGS)

The Logistics Supply Chain Management Associate of Applied Science degree provides students with an understanding of the fundamental principles of logistics and business, and with the working knowledge of inventory control, transportation, and

warehouse management required for employment in the field of logistics.

GENERAL EDUCATION REQUIREMENTS		18-19 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts	COM 102 (SUN# COM 1100), ECN 201 (SUN# ECN 2201), ECN 202 (SUN# ECN 2202), or PHI 130 (SUN# PHI 1105)	6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		39-41 CREDITS
Survey of American Business	BUS 109	3
Human Resource Management	BUS 123	3
Essential Workplace Success Skills	BUS 160	3
Business Communications	BUS 167	3
World Regional Geography	GEO 121	3
Principles of Logistics	LGS 101	3
Inventory Control	LGS 102	3
Freight Claims and Contracts	LGS 103	3
Computerized Logistics	LGS 104	2
Warehouse Management	LGS 105	3
Transportation and Traffic Management	LGS 106	3
Introduction to Purchasing	LGS 107	3
International Logistics	LGS 108	3
Field Experience in Logistics	LGS 224	1-3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Recommended electives: Students may consider 2–3 co-op credits in LGS 224 to gain additional workplace experience, and any course with a BUS/CIS/ECN prefix. Transfer students should check with transfer school for transferability.

Basic Logistics Supply Chain Management - Certificate (Major Code - LGSB)

The Basic Logistics Supply Chain Management Certificate is designed to prepare students for entry-level positions in the field of logistics by providing them with an understanding of the principles of logistics, inventory control, computerized logistics, and warehouse management. Students may develop further skills by completing the Logistics Supply Chain Management Associate of Applied Science degree.

CORE CURRICULUM		24 CREDITS
Business Communications	BUS 167	3
Computer Essentials	CIS 116	3
Principles of Logistics	LGS 101	3
Inventory Control	LGS 102	3
Computerized Logistics	LGS 104	2
Warehouse Management	LGS 105	3
Transportation and Traffic Management	LGS 106	OR
International Logistics	LGS 108	3
Readiness Skills for Logistics Careers	LGS 109	1
Field Experience in Logistics	LGS 224	3

TOTAL CERTIFICATE REQUIREMENTS **24 CREDITS**

Mathematics

Mathematics - Associate of Science (Major Code - MAT)

The Mathematics Associate of Science degree prepares students for transfer to a university program in mathematics, computer science, or natural sciences. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-S)		35-39 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 220 (SUN# MAT 2220) or higher	3-5
Laboratory sciences	PHY 230 (SUN# PHY 1121) and PHY 231 (SUN# PHY 1131)	8
Arts		3
Humanities		3
Social and behavioral sciences		6
Additional mathematics and/or laboratory sciences*		6-8

Six credits of arts, humanities, or social and behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Based on your major and after consulting with an advisor, select PHY 111 (SUN# PHY 1111) and/or additional laboratory science course(s). See http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec for a complete list.

CORE CURRICULUM		21 CREDITS
Programming Logic	CIS 130	3
C Programming or Java Programming**	CIS 204 or CIS 208	4
Discrete Mathematics	MAT 227 (SUN# MAT 2227)	3
Calculus II	MAT 231 (SUN# MAT 2230)	4
Calculus III	MAT 241 (SUN# MAT 2241)	4
Introduction to Linear Algebra	MAT 252	OR
Differential Equations***	MAT 262 (SUN# MAT 2262)	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)**

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

**After consulting with an advisor in the computer science department, select CIS 204 or CIS 208.

***After consulting with an advisor in the mathematics department, select MAT 252 or MAT 262 (SUN# MAT 2262).

****Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Music

Music - Associate of Arts (Major Code - MUS)

The Music Associate of Arts degree prepares students for transfer to a university program in music, interdisciplinary arts and performance, or related areas of study. To ensure seamless transfer, students should develop their specific program of study in close coordination with a Cochise College music instructor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**	**0-16 CREDITS**
Non-English language	
Second- or fourth-semester proficiency	

CORE CURRICULUM		**18 CREDITS**
SELECT TWO OF THE FOLLOWING FOUR:		2
Orchestra	MUS 109	
Chorus	MUS 110	
Band	MUS 111	
Ensemble	MUS 201	
Instrument - Individual Instruction	MUS 113	OR
Voice - Individual Instruction	MUS 115	2
Music Theory I	MUS 132	3
Music Theory II	MUS 133	3
Aural Skills I	MUS 134	1
Aural Skills II	MUS 135	1
Music Theory III	MUS 232 (SUN# MUS 2222)	3
Music Theory IV	MUS 233 (SUN# MUS 2223)	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

**University non-English language requirements vary. Check with your advisor.

***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Nursing

Nursing - Associate of Applied Science (Major Code - NUR)

Accredited by the National League for Nursing Accrediting Commission and approved by the Arizona State Board of Nursing, the Nursing Associate of Applied Science degree teaches about common physical and psychosocial health needs and problems throughout the human lifespan, the body's responses to stressors, alterations in growth and development, and nursing interventions. Concepts include use of the framework for effective communication, philosophies of human development, and the utilization of the nursing process with emphasis on intervention and evaluation. The clinical setting helps students develop competence in discharge planning, community nursing, and leadership. Students utilize knowledge of new developments in health care to adapt to changes in the field and to be proactive in the nursing profession.

Students are required to complete program prerequisites prior to admission and must complete courses in the order outlined in the program.

Upon completion of the program, students are eligible to take the National Council Licensure Examination (NCLEX-RN) to be licensed by the State Board of Nursing as a registered nurse.

Acceptance into the nursing program does not guarantee successful completion. Class attendance and clinical experience, which involves travel to various locations in Cochise County and elsewhere, are required. Experience in multiple clinical agencies is essential for completion of the program. Any potential legal impediment to licensure must be made known to the Nursing Department before assignment to any clinical agency. Completion of the program does not guarantee licensure by the Arizona State Board of Nursing.

Year 1 Program Prerequisites:

FALL AND SPRING SEMESTERS		**17 CREDITS**
Human Anatomy and Physiology I	BIO 201 (SUN# BIO 2201)	4
Human Anatomy and Physiology II	BIO 202 (SUN# BIO 2202)	4
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Update on Pharmacology	NUR 203	3

Year 2 Freshman:

FIRST SEMESTER		**13 CREDITS**
Medication Math I	NUR 121A	2
Nursing I	NUR 122	8
Introduction to Psychology	PSY 101 (SUN# PSY 1101)	3

SECOND SEMESTER		**13 CREDITS**
Nursing II-A	NUR 123	5
Nursing II-B	NUR 124	5
Developmental Psychology	PSY 240	3

Year 3 Sophomore:

THIRD SEMESTER		**12 CREDITS**
Medication Math II	NUR 121B	2
Nursing III	NUR 232	10

FOURTH SEMESTER		14 CREDITS
Microbiology	BIO 205 (SUN# BIO 2205)	4
Nursing IV	NUR 233	10
TOTAL DEGREE REQUIREMENTS		**69 CREDITS**

Notes:
Students must complete courses during or prior to the semester listed in the program outline.
All BIO and NUR courses must be completed with a grade of B or better.
BIO 201(SUN# BIO 2201) and BIO 202 (SUN# BIO 2202) require a prerequisite course. Science courses must have been completed within the last seven (7) years of admission to the Cochise College nursing program with a grade of B or better.
NUR 203 must have been completed within the last five (5) years of admission to the Cochise College nursing program with a grade of B or better.

Nursing Assistant - Certificate (Major Code - CNA)

The Nursing Assistant Certificate, which requires one semester to complete, is approved by the Arizona State Board of Nursing to prepare students for nursing assistant certification. Emphasis is on communication, patient safety, anatomy and physiology, specific patient-care skills, and patient rights. Included are the nursing process and the legal and professional responsibilities of the nursing assistant. Also covers the basic physical, psychosocial, and cultural needs of all patients, with special emphasis on the geriatric population.

CORE CURRICULUM		6 CREDITS
Nursing Assistant	HLT 109	5
CPR and First Aid	HLT 111	1
TOTAL CERTIFICATE REQUIREMENTS		**6 CREDITS**

Medication Assistant - Certificate (Major Code - MAC)

The Medication Assistant Certificate is approved by the Arizona State Board of Nursing to prepare Certified Nursing Assistants to become Certified Medication Assistants who can safely administer selected medications in some hospitals and in long-term care facilities. Emphasis is on simple calculations, categories of medication, and basic principles of medication administration. Students who complete the Medication Assistant Certificate and who pass the written and manual-skills exam administered by the Arizona State Board of Nursing will become Certified Medication Assistants.

Prior to enrollment, students must meet the following requirements:

1. Minimum 18 years of age
2. High school diploma, GED, or foreign equivalent with English language proficiency
3. Minimum six months working experience as a Certified Nursing Assistant.

CORE CURRICULUM		6 CREDITS
Medication Assistant - Certified	HLT 128	3
Medication Assistant Externship	HLT 129	3
TOTAL CERTIFICATE REQUIREMENTS		**6 CREDITS**

Philosophy

Philosophy - Associate of Arts (Major Code - PHI)

The Philosophy Associate of Arts degree prepares students for transfer to university programs in a variety of areas. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		35 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 151 (SUN# MAT 1151) or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT**	0-16 CREDITS
Non-English language	
Second- or fourth-semester proficiency	

CORE CURRICULUM		9 CREDITS
Introduction to Philosophy	PHI 111 (SUN# PHI 1101)	3
Introduction to Logic and Language	PHI 113 (SUN# PHI 1103)	3
Ethics	PHI 130 (SUN# PHI 1105)	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Physics

Physics - Associate of Science (Major Code - PHY)

The Physics Associate of Science degree prepares students for transfer to a university program in physics, physical science, or astronomy. To ensure seamless transfer, students must develop

their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-S)		37-39 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 220 (SUN# MAT 2220) or higher	3-5
Laboratory sciences	CHM 151 (SUN# CHM 1151) and CHM 152 (SUN# CHM 1152)	8
Arts		3
Humanities		3
Social and behavioral sciences		6
Calculus II	MAT 231 (SUN# MAT 2230)	4
Calculus III	MAT 241 (SUN# MAT 2241)	4

Six credits of arts, humanities, or social and behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

CORE CURRICULUM		12-14 CREDITS
Physics with Calculus I	PHY 230 (SUN# PHY 1121)	4
Physics with Calculus II	PHY 231 (SUN# PHY 1131)	4

SELECT ONE AREA OF EMPHASIS BELOW:

Physics		
Introduction to Linear Algebra	MAT 252	3
Differential Equations	MAT 262 (SUN# MAT 2262)	3
Physical Science		
Physical Geography	GEO 101	4
Astronomy		
Introduction to Astronomy	AST 180	4

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)*

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Professional Administrative Assistant

Professional Administrative Assistant - Associate of Applied Science (Major Code - PAA)

The Professional Administrative Assistant Associate of Applied Science degree prepares students for direct employment as administrative assistants and executive secretaries. The program provides a broad foundation of knowledge and skills needed for employment in business, industry, government, law and medical offices, and public and private agencies.

GENERAL EDUCATION REQUIREMENTS		18-19 CREDITS
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM		43 CREDITS
Business Math	BUS 104	OR
Introduction to Accounting	BUS 146	3
Administrative Assistant Skills I	BUS 106	4
Essential Workplace Success Skills	BUS 160	3
Business Communications	BUS 167	3
Administrative Assistant Skills II	BUS 206	4
Office Administration	BUS 207	3
Business Speech Communications	BUS 209	3
Automated Office Procedures	BUS 210	3
Automated Office Practice	BUS 211	3
Administrative Assistant Skills III	BUS 216	4
Administrative Assistant Skills IV	BUS 217	4
Computer Applications	CIS 181	3
Technical Presentations	CIS 268	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Administrative Office Aide - Certificate (Major Code - AOA)

The Administrative Office Aide Entry-Level Certificate is for individuals interested in entry or clerical type work in an office environment. The certificate will teach individuals the basic administrative office skills and procedures in an office environment.

CORE CURRICULUM		16-18 CREDITS
Essential Workplace Success Skills	BUS 160	3
Computer Essentials	CIS 116	3
Excel I	BUS A193	1
Excel II	BUS B193	1
Excel III	BUS C193	1
Automated Office Procedures	BUS 210	3
Word Processing	BUS 213	3
Electives (business approved courses)		1-3

TOTAL CERTIFICATE REQUIREMENTS **16-18 CREDITS**

Receptionist - Certificate (Major Code - RCP)

The Receptionist Certificate teaches students basic business mathematics and communication skills, and it prepares them to perform entry-level tasks involving customer service, word processing, and document preparation.

CORE CURRICULUM		18-19 CREDITS
Business Math	BUS 104	OR
Introduction to Accounting	BUS 146	3
Administrative Assistant Skills I	BUS 106	4
Essential Workplace Success Skills	BUS 160	3

Business Communications	BUS 167	3
Computer Essentials	CIS 116	3
Elective*		2-3

TOTAL CERTIFICATE REQUIREMENTS 18-19 CREDITS

*Field experience course or any CIS or BUS course not used in the certificate.

Psychology

Psychology - Associate of Arts (Major Code - PSY)

The Psychology Associate of Arts degree is intended for students interested in education, medicine, law, social work, business, or in human services such as mental health, nursing, child care, and criminal justice. It is also designed for transfer to university programs in psychology. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT 0-16 CREDITS**

Non-English language
Second- or fourth-semester proficiency

CORE CURRICULUM		**13 CREDITS**
Introduction to Psychology	PSY 101 (SUN# PSY 1101)	3
Introduction to Psychological Research, Measurements and Statistics	PSY 250	3
Experimental Psychology	PSY 290	4
SELECT ONE OF THE FOLLOWING:		
Social Psychology	PSY 210	OR
Personality Theories and Research	PSY 230	OR
Developmental Psychology	PSY 240	OR
Abnormal Psychology	PSY 270	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS 64 CREDITS

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

**University non-English language requirements vary. Check with your advisor.

***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Social Sciences

Social Sciences - Associate of Arts (Major Code - SS)

The Social Sciences Associate of Arts degree prepares students for transfer to a university program in anthropology, history, political science, sociology, or related areas of study. To ensure seamless transfer, students must develop their specific program in close coordination with a Cochise College advisor and in cooperation with department faculty.

GENERAL EDUCATION REQUIREMENTS (AGEC-A)		**35 CREDITS**
Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3
Humanities		3
Social and behavioral sciences	HIS 110 or HIS 111, and SOC 101 (SUN# SOC 1101)	6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT 0-16 CREDITS**

Non-English language
Second- or fourth-semester proficiency

CORE CURRICULUM		**21 CREDITS**
The Origin and Antiquity of Humankind	ANT 101	3
History of the United States 1607-1877	HIS 110	OR
History of the United States Since 1877	HIS 111	3
American National Government	POS 110 (SUN# POS 1110)	3

SELECT AN AREA OF EMPHASIS BELOW†

Anthropology

Select two of the following:		6
Society and Culture	ANT 102	
Prehistoric Cultures of North America	ANT 285	
Historic Indian Tribes of North America	ANT 286	
Select one of the following:		3
Exploring Archaeology	ANT 110	
Exploring Physical Anthropology	ANT 111	
Principles of Archaeology	ANT 235	
Archaeology of the Southwest	ANT 287	
Native Peoples of the Southwest	ANT 288	
Select one course from another area of emphasis.		3

History

Select two of the following:		6
Survey of Western Civilization I	HIS 240	
Survey of Western Civilization II	HIS 241	
Survey of Western Civilization III	HIS 242	
Select one of the following:		3

History of Women in the United States	HIS 201	
History of Mexico I	HIS 229	
History of Mexico II	HIS 230	
Select one course from another area of emphasis.		3

Political Science

Federal and Arizona Constitution	POS 220	3
World Politics	POS 230 (SUN# POS 1120)	3
Comparative Politics	POS 240 (SUN# POS 2204)	3
Select one course from another area of emphasis.		3

Sociology

Select two of the following:		6
Ethnic Groups and Minorities	SOC 160 (SUN# SOC 2215)	
Social Problems	SOC 202 (SUN# SOC 2250)	
Women and Men in a Changing Society	SOC 212	
Select one of the following:		3
Introduction to Social Welfare	SOC 207	
Marriage and the Family	SOC 210	
Human Sexuality and Gender Awareness	SOC 230	
Select one course from another area of emphasis.		3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

† Requires three courses from the area of emphasis and one course from another area of emphasis.
*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Social Work

Social Work - Associate of Arts (Major Code - SCW)

The Social Work Associate of Arts degree prepares students for transfer to a university program in social work or human services. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A) **35 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences*	BIO 156, BIO 160, or BIO 181 (SUN# BIO 1181)	4
Laboratory sciences*		4
Arts		3
Humanities	PHI 111 (SUN# PHI 1101) or PHI 130 (SUN# PHI 1105)	3
Introduction to Sociology	SOC 101 (SUN# SOC 1101)	3
Social and behavioral sciences	SOC 160 (SUN# SOC 2215) or AJS 101 (SUN# AJS 1101)	3
General education electives**		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT* **8-16 CREDITS**

Non-English language
Second- or fourth-semester proficiency

CORE CURRICULUM **15-16 CREDITS**

Introduction to Macroeconomics	ECN 201 (SUN# ECN 2201)	3
Introduction to Psychology	PSY 101 (SUN# PSY 1101)	3
Developmental Psychology	PSY 240	3
Introduction to Social Welfare	SOC 207	3
SELECT ONE OF THE FOLLOWING:		
Business Statistics	BUS 219 (SUN# BUS 2201)	OR
Introduction to Psychological Research, Measurements and Statistics	PSY 250	OR
Experimental Psychology	PSY 290	3-4

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)****

TOTAL DEGREE REQUIREMENTS **64-67 CREDITS**

*Laboratory sciences must include BIO 160 or BIO 201 (SUN# BIO 2201).
**General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
***University non-English language requirements vary. Check with your advisor.
****Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

Theatre Arts

Theatre Arts - Associate of Arts (Major Code - THE)

The Theatre Arts Associate of Arts degree prepares students for transfer to a university program in drama production, education, or theory. To ensure seamless transfer, students must develop their specific program of study in close coordination with a Cochise College advisor.

GENERAL EDUCATION REQUIREMENTS (AGEC-A) **35 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 142 or higher	3-5
Laboratory sciences		8
Arts		3

Humanities		3
Social and behavioral sciences		6
General education electives*		4-6

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

LANGUAGE REQUIREMENT **0-16 CREDITS**

Non-English language
Second- or fourth-semester proficiency

CORE CURRICULUM **12 CREDITS**

Acting I	THE 101	3
Introduction to the Theatre	THE 103	3
Acting II	THE 201	3
Dramatic Structure	THE 220 (SUN# THE 2220)	3

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)***

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**University non-English language requirements vary. Check with your advisor.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The Theatre Arts Department recommends THE 110 and COM 102 (SUN# COM 1100).

Unmanned Aircraft Systems

Unmanned Aircraft Systems and Operations - Associate of Applied Science (Major Code - UAS)

The Unmanned Aircraft Systems and Operations Associate of Applied Science degree prepares students to safely and effectively operate unmanned aircraft systems for commercial uses in the national airspace system.

GENERAL EDUCATION REQUIREMENTS **18-19 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-4
Liberal arts		6
Computer Essentials	CIS 116	3

CORE CURRICULUM **44 CREDITS**

Applied Technical Writing	CIS 179	3
Private Pilot Ground School	PFT 101	5
Solo Flight Preparation	PFT 111	3.5
Cross-Country Navigation	PFT 112	1.5
Private Pilot Certification	PFT 113	1
Aviation Weather	PFT 122	3
Instrument Rating Ground School	PFT 204	5
Aircraft Systems	PFT 206	3
Instrument Rating Flight I	PFT 214	3.5
Instrument Rating Flight II	PFT 215	1.5
Introduction to Unmanned Aircraft Systems	UAS 101	3
Remote Sensing and Imagery	UAS 121	3
Unmanned Aircraft Systems Pilot and Payload Operator	UAS 201	8

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

Unmanned Aerial Vehicle Flight Operator - Associate of Applied Science (Major Code - UAVO)

The Unmanned Aerial Vehicle Flight Operator Associate of Applied Science degree is intended for current Unmanned Aerial Vehicle (UAV) flight operators seeking to improve their education and career prospects in the field. It focuses on aviation systems and the flight operation of UAVs.

Military credit toward this degree may be based on skill level, training, and/or coursework from military schools attended. See an academic advisor for details.

GENERAL EDUCATION REQUIREMENTS **18-20 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM **31-34 CREDITS**

Private Pilot Ground School	PFT 101	5
SELECT ONE OF THE FOLLOWING:		
Unmanned Aerial Vehicle (UAV) Operator	PFT 271	29
Unmanned Aerial Vehicle (UAV) External Pilot	PFT 272	26

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

THE UNMANNED AERIAL VEHICLE FLIGHT OPERATOR ASSOCIATE OF APPLIED SCIENCE DEGREE IS RUN THROUGH THE MOS CREDENTIALING PROGRAM ON FORT HUACHUCA AND DOES NOT FOLLOW STANDARD SEMESTER SCHEDULING.

Unmanned Aircraft Systems Technician - Associate of Applied Science (Major Code - UAVT)

The Unmanned Aircraft Systems Technician Associate of Applied Science degree is intended for current unmanned aircraft systems technicians seeking to improve their education and career prospects in the Unmanned Aerial Vehicle (UAV) field. It focuses on mechanical and electronic aircraft systems.

Military credit toward this degree may be based on skill level, training, and/or coursework from military schools attended. See an academic advisor for details.

GENERAL EDUCATION REQUIREMENTS **18-20 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3

English Composition	ENG 102 (SUN# ENG 1102)	3
Mathematics	MAT 123 or higher	3-5
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM **22-27 CREDITS**

SELECT TWO OF THE FOLLOWING:

Unmanned Aerial Vehicle (UAV) Maintenance Technician	AMT 210	14
Unmanned Aerial Vehicle (UAV) Mechanical Technician	AMT 212	13
Unmanned Aerial Vehicle Avionics	AVT 211	9

ELECTIVES
(AS NEEDED TO COMPLETE 64 CREDITS)

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

THE UNMANNED AIRCRAFT SYSTEMS TECHNICIAN ASSOCIATE OF APPLIED SCIENCE DEGREE IS RUN THROUGH THE MOS CREDENTIALING PROGRAM ON FORT HUACHUCA AND DOES NOT FOLLOW STANDARD SEMESTER SCHEDULING.

Welding Technology

Welding Technology - Associate of Applied Science (Major Code - WLD)

The Welding Technology Associate of Applied Science degree is designed to prepare students to enter the workforce in almost any facet of the diverse field of welding technology. It addresses the needs of beginners as well as those of experienced welders looking to upgrade their skills and certifications.

GENERAL EDUCATION REQUIREMENTS **18 CREDITS**

Composition	ENG 101 (SUN# ENG 1101)	3
English Composition	ENG 102 (SUN# ENG 1102)	3
Applied Mathematics	MAT 132	3
Liberal arts		6
Technology literacy	CIS 116 or CIS 120 (SUN# CIS 1120)	3

CORE CURRICULUM **46 CREDITS**

Fundamentals of AutoCAD	DFT 150	3
Manufacturing Materials and Processes	GTC 105	3
Oxyacetylene Welding	WLD 105	3
Arc Welding	WLD 106	3
Gas Metal Arc Welding	WLD 128	3
Welding Survey	WLD 202	4
Blueprint Interpretation	WLD 203	3
Gas Tungsten Arc Welding	WLD 209	3
Advanced Shield Metal Arc Welding	WLD 210	3
Pipe Fitting and Welding	WLD 211	3
Advanced Shield Metal Arc Welding II	WLD 212	3
Welding Design and Fabrication	WLD 215	3
Pipe Layout and Fitting	WLD 217	3
Advanced Gas Metal Arc Welding	WLD 228	3
Advanced Flux-Cored Arc Welding	WLD 229	3

TOTAL DEGREE REQUIREMENTS **64 CREDITS**

General Welding Technology - Certificate (Major Code - GWLD)

The General Welding Technology Certificate prepares students to enter the workforce with diverse welding skills.

CORE CURRICULUM **18 CREDITS**

Oxyacetylene Welding	WLD 105	3
Arc Welding	WLD 106	3
Gas Metal Arc Welding	WLD 128	3
Blueprint Interpretation	WLD 203	3
Gas Tungsten Arc Welding	WLD 209	3
Advanced Shield Metal Arc Welding	WLD 210	3

TOTAL CERTIFICATE REQUIREMENTS **18 CREDITS**

Welding Technology - Certificate (Major Code - WLD)

The Welding Technology Certificate prepares students to enter the workforce with diverse welding skills and with knowledge of design concepts used in the welding industry.

CORE CURRICULUM **30 CREDITS**

Applied Technical Writing	CIS 179	3
Fundamentals of AutoCAD	DFT 150	3
Manufacturing Materials and Processes	GTC 105	3
Applied Mathematics	MAT 132	3
Oxyacetylene Welding	WLD 105	3
Arc Welding	WLD 106	3
Gas Metal Arc Welding	WLD 128	3
Blueprint Interpretation	WLD 203	3
Gas Tungsten Arc Welding	WLD 209	3
Advanced Shield Metal Arc Welding	WLD 210	3

TOTAL CERTIFICATE REQUIREMENTS **30 CREDITS**

Aerospace Thermal Fusion - Certificate (Major Code - AETF)

The Aerospace Thermal Fusion Certificate teaches welding skills along with basic computer skills, applied mathematics skills, and technical writing skills in preparation for entry-level welding jobs in industries such as aviation, aerospace, motorsports, and exotic material fabrication. It also provides the knowledge and skills required for certification under American Welding Society (AWS) or Military Standard (MIL-STD) welding codes.

CORE CURRICULUM **30 CREDITS**

Computer Essentials	CIS 116	OR
Introduction to Information Systems	CIS 120 (SUN# CIS 1120)	3
Applied Technical Writing	CIS 179	3
Manufacturing Materials and Processes	GTC 105	3
Applied Mathematics	MAT 132	3
Oxyacetylene Welding	WLD 105	3
Blueprint Interpretation	WLD 203	3
Gas Tungsten Arc Welding	WLD 209	3
Advanced GTAW - Soft Metals	WLD 218	3
Advanced GTAW - Hard Metals	WLD 219	3
Advanced GTAW - Exotic Metals	WLD 220	3

TOTAL CERTIFICATE REQUIREMENTS	**30 CREDITS**

Aerospace Welding Technology - Certificate (Major Code - AEWT)

The Aerospace Welding Technology Certificate prepares students for entry-level welding jobs in industries such as aviation, aerospace, motorsports, and exotic material fabrication. It provides the knowledge and skills required for certification under American Welding Society (AWS) or Military Standard (MIL-STD) welding codes.

CORE CURRICULUM		**18 CREDITS**
Oxyacetylene Welding	WLD 105	3
Blueprint Interpretation	WLD 203	3
Gas Tungsten Arc Welding	WLD 209	3
Advanced GTAW - Soft Metals	WLD 218	3
Advanced GTAW - Hard Metals	WLD 219	3
Advanced GTAW - Exotic Metals	WLD 220	3
TOTAL CERTIFICATE REQUIREMENTS		**18 CREDITS**

Arizona Department of Corrections

These programs have been designed for the inmates of the Arizona Department of Corrections in Douglas.

Automotive Technology

Basic Automotive Technology - Certificate (Major Code - BATC)

The Basic Automotive Technology Certificate provides basic knowledge and skills in automotive maintenance and repair. It prepares students for Automotive Service Excellence (ASE) certifications.

CORE CURRICULUM		15 CREDITS
Introduction to Automotive Technology	AUT 101	3
Automotive Electrical Fundamentals	AUT 102	3
Internal Combustion Engines	AUT 103	3
Automotive Brake Systems	AUT 104	3
Automotive Suspension and Steering Systems	AUT 105	3
TOTAL CERTIFICATE REQUIREMENTS		**15 CREDITS**

Advanced Automotive Technology - Certificate (Major Code - AATC)

The Advanced Automotive Technology Certificate provides advanced knowledge and skills in automotive maintenance and repair. It prepares students for Automotive Service Excellence (ASE) certifications.

CORE CURRICULUM		15 CREDITS
Automotive Manual Drive Systems	AUT 106	3
Automotive Electrical Systems and Equipment	AUT 201	3
Automatic Transmission/Transaxle Diagnostics and Rebuilding	AUT 204	3
Automotive Heating, Ventilation and Air Conditioning	AUT 205	3
Engine Performance	AUT 206	3
TOTAL CERTIFICATE REQUIREMENTS		**15 CREDITS**

Automotive Service Manager - Certificate (Major Code - ASM)

The Automotive Service Manager Certificate provides students with customer relations skills relating to proper parts selection, repair recommendations, and routine maintenance. It prepares students for a management career in the automotive technology industry.

CORE CURRICULUM		12 CREDITS
Automotive Service Consultant	AUT 107	3
Automotive Parts Specialist	AUT 108	3
Automotive Service Management	AUT 207	3
Principles of Management	BUS 143	3
TOTAL CERTIFICATE REQUIREMENTS		**12 CREDITS**

Building Construction Technology

Basic Building Construction Technology - Certificate (Major Code - BBCT)

The Basic Building Construction Technology Certificate introduces students to carpentry, blueprint reading, building codes, and math skills in preparation for employment in the building trades.

CORE CURRICULUM		13 CREDITS
Technical Mathematics I	BCT 100	3
Carpentry Fundamentals	BCT 102	4
International Residential Building Codes	BCT 103	3
Blueprint Reading and Estimating	BCT 127	3
TOTAL CERTIFICATE REQUIREMENTS		**13 CREDITS**

Advanced Building Construction Technology - Certificate (Major Code - ABCT)

The Advanced Building Construction Technology Certificate provides students with skills in the electrical, plumbing, and carpentry areas in preparation for employment in the construction trades.

CORE CURRICULUM		16 CREDITS
Electric I	BCT 104	4
Plumbing I	BCT 111	4
Carpentry Framing and Finishing	BCT 201	4
Carpentry Forms	BCT 202	4
TOTAL CERTIFICATE REQUIREMENTS		**16 CREDITS**

Cabinetmaker - Certificate (Major Code - CAB)

The Cabinetmaking Certificate provides students with the skills necessary to obtain employment in the cabinetmaking industry.

CORE CURRICULUM		12 CREDITS
Cabinetmaking	BCT 110	3
Cabinetmaking II	BCT 210	3
Cabinetmaking III	BCT 211	3
Painting and Finishing Techniques	GTC 121	3
TOTAL CERTIFICATE REQUIREMENTS		**12 CREDITS**

Computer Technology

Basic Computer Technology - Certificate (Major Code - BCPT)

The Basic Computer Technology Certificate prepares students for employment in technology-related fields involving computer applications.

CORE CURRICULUM		12 CREDITS
Computer Essentials	CIS 116	3
Introduction to Information	CIS 120 (SUN# CIS	3

Systems	1120)	
Computer Applications	CIS 181	3
Advanced Computer Applications	CIS 281	3
TOTAL CERTIFICATE REQUIREMENTS		**12 CREDITS**

Advanced Computer Technology - Certificate (Major Code - ACPT)

The Advanced Computer Technology Certificate prepares students for employment in technology-related fields involving computer networking, operating systems, and security.

CORE CURRICULUM		**13 CREDITS**
Programming Logic	CIS 130	3
Introduction to Operating Systems	CIS 140	3
Essentials of Networking	CIS 150	3
Introduction to Information Security	CIS 160	4
TOTAL CERTIFICATE REQUIREMENTS		**13 CREDITS**

Computer Maintenance Technician - Certificate (Major Code - CMT)

The Computer Maintenance Technician Certificate provides students with knowledge and skills to diagnose, repair, service, and maintain information technology hardware. It prepares them for a career in the computer maintenance industry.

CORE CURRICULUM		**15 CREDITS**
Internet Essentials	CIS 185	3
Digital Communications and Network Hardware	CIS 232	4
Microsoft Workstation Operating Systems	CIS 236	4
Service and Maintenance of Personal Computers	CIS 260	4
TOTAL CERTIFICATE REQUIREMENTS		**15 CREDITS**

Facility Maintenance

Air Conditioning Maintenance Technician - Certificate (Major Code - ACM)

The Air Conditioning Maintenance Technician Certificate provides students with a broad understanding of the field and the knowledge necessary to enter the air conditioning and refrigeration industry.

CORE CURRICULUM		**16 CREDITS**
Refrigeration I	GTC 122	3
Refrigeration II	GTC 222	3
Heating and Air Conditioning	GTC 223	4
Hazardous Materials and the EPA	GTC 128	3
Electricity and Wiring for HVAC/R	GTC 227	3
TOTAL CERTIFICATE REQUIREMENTS		**16 CREDITS**

Telecommunications

Telecommunications Cable Installation - Certificate (Major Code - TCI)

The Telecommunications Cable Installation Certificate introduces students to the fundamentals of electronics, networking, and voice and data transmission, and it prepares them for employment in most cabling-related industries.

CORE CURRICULUM		**12 CREDITS**
Essentials of Networking	CIS 150	3
Electronics Foundations	ELT 100	3
Fundamentals of Voice and Data Cabling I	NET 112	3
Fundamentals of Voice and Data Cabling II	NET 212	3
TOTAL CERTIFICATE REQUIREMENTS		**12 CREDITS**

Course Descriptions

Hazardous materials: Certain courses may require students to work with potentially hazardous materials as part of their course work in the laboratory, darkroom, or workshop. Instructors will provide information on the safe handling of all materials to include, upon request, material safety data sheets (MSDS). If you have questions regarding the use of these materials or any required protective equipment, ask your instructor or a member of the specific academic department.

The Shared Unique Number (SUN) System helps students identify courses that will directly transfer among Arizona's community colleges and three public universities. Using the SUN System, students can easily search for and enroll in courses that offer direct equivalency at other Arizona colleges and universities. SUN courses have their own unique course number and prefix listed alongside the college's course number. Visit www.aztransfer.com/sun for more information.

AGR - Agriculture

AGR 101 Principles of Veterinary Science (3)

Prerequisite(s): None.

A study of the diseases and the health maintenance of domestic animals and livestock. For those interested in animal science or husbandry, or in veterinary science.

3 hours lecture.

AGR 102 Introduction to Agriculture (3)

Prerequisite(s): None.

An introduction to agriculture which focuses on livestock production. Also deals with plants, soils, biotechnology, natural resources, and sustainable agriculture as it relates to the global food industry. Includes a survey of agricultural careers and safety practices.

3 hours lecture.

AGR 105 Range Management (3)

Prerequisite(s): ENG 100 or placement in ENG 101; and RDG 110, placement in RDG 122, or exemption.

An introduction to the principles of range management including rangeland types, characteristics, and management; ecological principles; range inventory and monitoring systems; grazing systems and stocking rates; grazing distribution and range plant identification; and management of range vegetation and wildlife. Also deals with livestock production on rangelands and career opportunities in range management.

3 hours lecture.

AGR 107 ‡ Farrier Science (3)

Prerequisite(s): None.

A study of the basic principles of farrier science, including an introduction to the physiology and anatomy of the horse's legs and hooves, horse shoeing, diagnosis of minor hoof and leg problems and proper methods for correcting stride and alignment.

2 hours lecture, 3 hours laboratory.

AGR 142A Varsity Rodeo I (1)

Prerequisite(s): Students must try out for the rodeo team.

Designed to provide the rodeo student-athlete with a knowledge of the rules and with the elementary skills and strategies necessary to compete at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

AGR 142B Varsity Rodeo II (1)

Prerequisite(s): AGR 142A or permission of instructor.

Designed to provide the rodeo student-athlete with the basic skills and strategies necessary to compete at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

AGR 142C Varsity Rodeo III (1)

Prerequisite(s): AGR 142B or permission of instructor.

Designed to provide the rodeo student-athlete with the intermediate skills and strategies necessary to compete at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

AGR 142D Varsity Rodeo IV (1)

Prerequisite(s): AGR 142C or permission of instructor.

Designed to provide the rodeo student-athlete with the advanced skills and strategies necessary to compete at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

AGR 145 Agriculture Issues (3)

Prerequisite(s): None.

This course provides knowledge of staging and producing agriculture-related events. Emphasis is placed on animal-rights issues, promotions, rules and/or laws, and setting of goals and objectives.

3 hours lecture.

AGR 201 ‡ Artificial Insemination of Domestic Livestock (3)

Prerequisite(s): AGR 101 or permission of instructor.

The history, importance and implications of artificial insemination; advantages and limitations of its use in farm animals. Methods of collection, evaluation, storage of semen, and techniques of insemination are covered. Also, estrus evaluation, determination and synchronization techniques are studied. In addition, the domestic livestock female and male reproductive anatomy is discussed.

2 hours lecture, 3 hours laboratory.

AGR 208 Animal Science (4)

Prerequisite(s): AGR 102, and RDG 122 or exemption.

An introduction to animal science as it relates to nutrition, digestion, breeding, and reproduction. Includes an overview of global agricultural systems and of the fundamental principles of the animal science industries as they relate to dairy, beef, poultry, and swine.

3 hours lecture, 3 hours laboratory.

AGR 214 ‡ Soil Science (4)

Prerequisite(s): CHM 130, CHM 138, or CHM 151.

A study of the fundamental principles of soil science including the origin, nature, and composition of soils; their chemical, physical, and biological properties in relation to plant growth; and their non-plant uses.

3 hours lecture, 3 hours laboratory.

AGR 220 Agriculture Practicum (4)

Prerequisite(s): AGR 102 or AGR 237, sophomore standing, a declared major in agriculture, and approval of the agriculture committee.

In this practicum, students apply knowledge from their agriculture coursework in a work setting. They complete 320 supervised hours in their area of interest with a professional from the agricultural industry.

1 hour lecture, 11 hours laboratory.

AGR 225 Principles of Agribusiness (3)

Prerequisite(s): MAT 123 or higher, and RDG 122 or exemption.

An introduction to the principles of economics and their application to real world agribusiness management. Topics include food production and processing, and marketing systems. Also covers management principles and processes for agricultural business firms in both domestic and international markets, as well as the development of problem-solving skills as they relate to agribusiness management.

3 hours lecture.

AGR 230 Feeds and Feeding (3)

Prerequisite(s): AGR 208 or AGR 237; CHM 130, CHM 138, or CHM 151; and RDG 122 or exemption.

Recommended Preparation: MAT 081 or higher.

A study of the digestibility of feeds and their nutritive values, grades, and classes. Also covers the principles of selection, evaluation, traditional ration formulation, computer ration formulation, and feeding of livestock and poultry. Includes laws and labeling as they pertain to feeds, and a review of animal nutrition and ruminant and monogastric digestion.

3 hours lecture.

AGR 237 ‡ Equine Science and Management (4)

Prerequisite(s): ENG 100 or placement in ENG 101, and RDG 122 or exemption.

An introduction to the light horse industry. Topics include the evolution and fundamentals of Equus, as well as breeds, classes, and methods of identification. Also covers anatomical systems, the hoof, nutrition, disease, health management, and daily care. Introduces the student to various career opportunities in the equine industry.

3 hours lecture, 3 hours laboratory.

AGR 243 Livestock Production and Management (3)

Prerequisite(s): AGR 102, AGR 208, and RDG 122 or exemption.

A study of the operational methods of livestock production utilized in the breeding and managing of beef and dairy cattle, swine, sheep, and goats. Emphasis is on economically important traits, animal selection, marketing and management, and on the economic principles of the livestock industry. Covers the impact of biotechnology on livestock. Additional topics include genetic defects, body conditioning scoring techniques within species, and current domestic and global trends in livestock production. Introduces the student to various career opportunities in livestock production.

3 hours lecture.

AGR 299 Individual Studies (1-4)

Prerequisite(s): Approval of appropriate instructional manager and instructor.

Completion of a research problem or an outlined course of study under the direction of a faculty member, with contract for the individual study agreed upon by the student, the instructor, and the appropriate instructional manager prior to initiation of the study.

AJS - Administration of Justice

AJS 100 Youth Citizen Police Academy (3)

Prerequisite(s): No prior felony convictions and no misdemeanor charges for offenses involving violence or weapons. No misdemeanor arrests within six months prior to Academy application.

Recommended Preparation: High school age.

An introduction to the police department and law enforcement in general, including the agency's role in the community and within the criminal justice system. This course is designed to better acquaint the youth of our community with the operation of the local criminal justice system and to foster law enforcement as a career choice.

3 hours lecture.

AJS 101 * (SUN# AJS 1101) Introduction to Administration of Justice (3)

Prerequisite(s): Completion of or concurrent enrollment in RDG 110 or RDG 122, or exemption.

Recommended Preparation: Completion of or concurrent enrollment in ENG 100 or higher.

A study of the history, philosophy, ethics, constitutional parameters, organization and terminology of the criminal justice system. Also includes an analysis of crime and social responses to crime; the social and psychological causes of crime; the law enforcement, judicial and corrections components of the criminal justice system; critical analysis of representative criminal justice cases/issues; agency jurisdiction; and career opportunities.

3 hours lecture.

AJS 104 Physical Training (2)

Prerequisite(s): None.

This course will introduce the student to advanced principles of aerobic exercise, strength development and flexibility. It will emphasize methods of stress reduction, the value of nutrition awareness and the development of individual exercise programs.

1 hour lecture, 3 hours laboratory.

AJS 109 * Substantive Criminal Law (3)

Prerequisite(s): AJS 101, and either RDG 122 or exemption or concurrent enrollment in RDG 122.

Recommended Preparation: ENG 100 or higher.

This course is the study of the philosophy of legal sanctions and their historical development, from common law to modern

American criminal law. It includes the judicial process, classification of crimes, elements of and parties to crimes, general definitions of crimes, and common defenses.

3 hours lecture.

AJS 110 Defensive Tactics (2)

Prerequisite(s): Student must pass pre-admission physical test, and must be enrolled in a certified police academy or is a sworn peace officer.

The focus of attention in this course will be the use of basic techniques. Each technique demonstrated by the instructor will have a variety of uses. All techniques will be designed to incapacitate the object of focus as quickly and professionally as possible. The importance of documentation followed by court testimony techniques will be strictly emphasized throughout the entire course.

1 hour lecture, 3 hours laboratory.

AJS 113 * Terrorism and Counterterrorism (3)

Prerequisite(s): None.

Recommended Preparation: ENG 101.

An examination of the history of terrorism and the tactics and technologies used by terrorist groups. Examines the nature of the terrorist threat and countermeasures to combat terrorism. Identical to IOS 113.

3 hours lecture.

AJS 120 Firearms Certification (2)

Prerequisite(s): Student must be registered as part of a law enforcement or corrections program.

This course will prepare a student to use firearms safely. The course will be conducted in compliance with the curriculum set forth by the National Rifle Association Police Practical Course. It will cover areas such as semiautomatic handguns, shotguns, use of force, safe handling of guns, ballistics, malfunctions and overall safety.

1 hour lecture, 3 hours laboratory.

AJS 122 The Police Patrol Function (3)

Prerequisite(s): None.

Recommended Preparation: RDG 110 or exemption.

A study of the history, theory, duties and responsibilities of the patrol division; communications and development of observational powers; care and use of protective weapons, patrol vehicles, and other equipment. Handling of emergency requests for assistance, vehicle stops, burglary, robbery, sex offenses, the mentally ill, and other kinds of situations.

3 hours lecture.

AJS 140 AZ Detention Officers Basic Training Academy (6)

Prerequisite(s): Student must be employed by a recognized Arizona law enforcement agency.

This course provides the basic training required to become certified as an Arizona detention officer.

5 hours lecture, 3 hours laboratory.

AJS 192 Special Topics in Administration of Justice (0.5-3)

Prerequisite(s): Varies by topic. Permission of instructor or Administration of Justice department.

Seminars designed for professional development and personal skill enhancement within the criminal justice career field with emphasis on the mastery and effective utilization of the topic under study.

AJS 204 Elements of Intercultural Communication (3)

Prerequisite(s): ENG 101 or permission of instructor.

An introduction to communication across cultures. Emphasis is on the theory underlying intercultural communication and on the practical application of communication strategies and skills that lead to improved communication among people of diverse cultural backgrounds in a multicultural society and world. Identical to COM 204.

3 hours lecture.

AJS 206 * Practical Applications in Asset Protection (3)

Prerequisite(s): ENG 101 or permission of instructor.

Recommended Preparation: Related security, law enforcement, or military experience.

A study of advanced private security principles and practices with a focus on current events and their implications for the private security industry. Students identify the elements of an asset protection program and use case studies to review and apply strategies that mitigate risk and reduce asset vulnerabilities.

3 hours lecture.

AJS 212 * Juvenile Justice Procedures (3)

Prerequisite(s): ENG 101 and either RDG 122 or exemption.

This course is a practical study of the history and development of juvenile justice theories, procedures and institutions.

3 hours lecture.

AJS 215 Penology (3)

Prerequisite(s): AJS 101, AJS 112, ENG 101, and RDG 122 or exemption.

A study of correctional management topics including sentencing, classification, "good time" credit, discipline, prisoners' rights and security/control measures; additional emphases are placed on the guard's role, different management styles, and various correctional models.

3 hours lecture.

AJS 224 Field Experience in Administration of Justice (1-6)

Prerequisite(s): A declared major in administration of justice and permission of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing and faculty recommendation.

A supervised cooperative education field experience involving the combined efforts of educators and employers. Students accomplish various academic and career-related objectives in administration of justice and related fields.

AJS 225 * Criminology (3)

Prerequisite(s): ENG 101 and either RDG 122 or exemption.

Recommended Preparation: SOC 101 or PSY 101.

This course is the study of deviance and society's role in defining behavior. It covers theories of criminality and the economic, social, and psychological impact of crime, victimization, and relationships between statistics and crime trends.

3 hours lecture.

AJS 230 * The Police Function (3)

Prerequisite(s): AJS 101, ENG 101, and either RDG 122 or exemption.

This course examines the study of theories, procedures and methods of operation of public police with emphasis on discretionary powers. It includes a review of career opportunities and current trends in law enforcement.

3 hours lecture.

AJS 240 * The Correction Function (3)

Prerequisite(s): RDG 122 or exemption.

This course examines the study of the history and development of correctional theories and institutions.

3 hours lecture.

AJS 260 Procedural Criminal Law (3)

Prerequisite(s): AJS 109, ENG 101, and either RDG 122 or exemption.

This course is an introduction to major court holdings, procedural requirements that stem from these holdings, and their effect on daily operations of the criminal justice system.

3 hours lecture.

AJS 275 Criminal Investigations (3)

Prerequisite(s): AJS 101, ENG 101, and either RDG 122 or exemption.

A study of the theory of criminal investigation, crime scene procedures, case preparation, interviewing, and basic investigative techniques.

3 hours lecture.

AMT - Aviation Maintenance Technology

AMT 210 Unmanned Aerial Vehicle (UAV) Maintenance Technician (14)

Prerequisite(s): Must be a sponsored employee of the Department of Defense (DOD) or of a DOD UAV contractor.

A practical study of the maintenance of the Shadow short-range unmanned aerial vehicle (UAV). Includes operational safety; basic flight principles; inspection, maintenance, and servicing practices; UAV support equipment; and operational procedures.

8 hours lecture, 18 hours laboratory.

AMT 212 Unmanned Aerial Vehicle (UAV) Mechanical Technician (13)

Prerequisite(s): Must be a sponsored employee of the Department of Defense (DOD) or of a DOD UAV contractor.

A focused study of the maintenance and repair of the Shadow unmanned aerial vehicle (UAV). Emphasis is on the power plant, fuel system, digital central processor assembly, flight control system, electrical power system, and system support equipment. Also covers system performance criteria, operational safety, inspection techniques, and diagnosis of the UAV.

8 hours lecture, 15 hours laboratory.

ANT - Anthropology

ANT 101 * The Origin and Antiquity of Humankind (3)

Prerequisite(s): RDG 122 or exemption, and ENG 100 or placement in ENG 101; or permission of instructor.

A survey of human biological origins, based upon paleontological and archaeological records, including recent developments in physical anthropology.

3 hours lecture.

ANT 102 * Society and Culture (3)

Prerequisite(s): RDG 122 or exemption, and ENG 100 or concurrent enrollment; or permission of instructor.

A theoretical and practical introduction to cultural anthropology designed to provide insight into cultural forces that affect the human way of life, and to examine the Western history of interpreting the other. Contemporary issues are addressed. Included are the study of material culture, technology, religion and language, and social, political, and economic systems.

3 hours lecture.

ANT 110 * Exploring Archaeology (3)

Prerequisite(s): RDG 122 or exemption; and ENG 100 or concurrent enrollment, or placement in ENG 101; or permission of instructor.

A non-technical introduction to archaeology tracing human cultural development from the earliest stone tools to the initial civilizations of the old and new worlds.

3 hours lecture.

ANT 111 * Exploring Physical Anthropology (3)

Prerequisite(s): RDG 122 or exemption, and ENG 100 or concurrent enrollment; or permission of instructor.

An introduction to human evolution for the non-science student. Also serves as an introduction to primatology and general anthropology, grounding the student in the methods and ideas of modern anthropology.

3 hours lecture.

ANT 235 Principles of Archaeology (3)

Prerequisite(s): RDG 122 or exemption, and ENG 101.

An introduction to the methods and theories used in archaeological research and interpretation with emphasis upon the practical aspects of archaeology.

3 hours lecture.

ANT 285 * Prehistoric Cultures of North America (3)

Prerequisite(s): RDG 122 or exemption, and ENG 101.

A survey of prehistoric cultures in North America. Included are basic anthropological, archaeological and ethnological theory methods and concepts.

3 hours lecture.

ANT 286 Historic Indian Tribes of North America (3)

Prerequisite(s): RDG 122 or exemption, and ENG 101.

A survey of historical Native cultures in the ten North American environmental regions from contact through the 20th century. Contemporary economic, political and cultural issues are ad-

dressed. Included are basic anthropological, historical and ethnological theory, methods and concepts.

3 hours lecture.

ANT 287 * Archaeology of the Southwest (3)

Prerequisite(s): None.

A study of the prehistoric people of the American Southwest from the late Pleistocene to the Spanish conquest. The course includes discussions of local archaeological culture emphasizing the process for cultural development within key regions.

3 hours lecture.

ANT 288 Native Peoples of the Southwest (3)

Prerequisite(s): ENG 101.

A survey of southwestern Native American cultures from historic times to the present. Includes Athabaskan, Puebloan, and O'odham societies; adaptations to their respective environments; and cultural effects from historic events.

3 hours lecture.

ANT 299 Individual Studies (1-4)

Prerequisite(s): Approval of appropriate instructional manager and instructor.

Completion of a research problem or an outlined course of study under the direction of a faculty member with contract for the individual study agreed upon by the student, the instructor, and the appropriate instructional manager prior to initiation of the study.

ART - ART

ART 103 ‡ (SUN# ART 1112) Design Fundamentals (3)

Prerequisite(s): None.

An introduction to the basic elements of design: line, shape, value, texture, and color. Students learn to arrange these elements according to the basic principles of organization (harmony and variety) in a two-dimensional or a three-dimensional framework. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 106 ‡ (SUN# ART 1111) Drawing I (3)

Prerequisite(s): None.

An introduction to representational drawing and pictorial design with local landscapes, still-life objects, and photographs as subject matter. Emphasis is on freehand drawing to improve hand-eye coordination. Students are also encouraged to use their imagination and memory in the development of artistic ideas. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 107 * (SUN# ART 1101) Survey of World Art: Prehistoric - Gothic (3)

Prerequisite(s): RDG 122, concurrent enrollment, or exemption; or permission of instructor.

A survey presentation of the art and architecture of Western civilizations through the Gothic era, including prehistoric cultures of the world.

3 hours lecture.

ART 108 * (SUN# ART 1102) Survey of World Art: Renaissance to the Twentieth Century (3)

Prerequisite(s): RDG 122, concurrent enrollment, or exemption; or permission of instructor.

A survey presentation of the art and architecture of Western civilizations from the Renaissance through the 20th century.

3 hours lecture.

ART 120 Appreciation of Visual Arts (3)

Prerequisite(s): ENG 100, placement in ENG 101, or permission of instructor.

A general overview of the visual arts, including philosophies, history, techniques, various media, and elements of design. Fulfills the art education requirement for teacher certification at the University of Arizona.

3 hours lecture.

ART 130 ‡ Painting for Personal Development I (2)

Prerequisite(s): None.

Recommended Preparation: ART 103.

An introduction to the techniques of either oil or acrylic painting, with an emphasis on materials and composition. For those interested in art as a career, or for personal growth and self-expression.

1 hour lecture, 3 hours studio.

ART 131 ‡ Painting for Personal Development II (2)

Prerequisite(s): ART 130 or permission of instructor.

A continued study of either oil or acrylic painting, with emphasis on developing unique, expressive pictorial skills. For those interested in art as a career, or for personal growth and self-expression.

1 hour lecture, 3 hours studio.

ART 216 ‡ Drawing II (3)

Prerequisite(s): ART 106 or permission of instructor.

Recommended Preparation: In addition, art majors must have ART 103 or permission of instructor.

A continued study of representational drawing and pictorial design with local landscapes, still-life objects, and photographs as subject matter. Students use their creative initiative to develop individual projects, and they further improve their hand-eye coordination. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 220 ‡ Printmaking I (3)

Prerequisite(s): ART 103, ART 106, or permission of instructor.

Recommended Preparation: ART 216 and ART 245.

An introductory course in printmaking as a visual language of expression. Various relief printmaking processes are addressed through the exploration of basic tools, equipment and techniques used in these processes. Emphasis is placed on the proper use of the tools and equipment and the development of skills pertaining to form and content in the creation of individual works of art.

2 hours lecture, 4 hours studio.

ART 225 ‡ Printmaking II (3)

Prerequisite(s): ART 220 and either ART 103, ART 106, or permission of instructor.

Recommended Preparation: ART 216 and ART 245.

An intermediate course in printmaking as a visual language of expression. Various relief printmaking processes are addressed through the exploration of basic tools, equipment and techniques used in these processes. Emphasis is placed on the proper use of the tools and equipment and the continued development of skills pertaining to form and content in the creation of individual works of art.

2 hours lecture, 4 hours studio.

ART 230 ‡ Color and Design (3)

Prerequisite(s): None

Continued investigations into the elements and principles of design including line, shape, value, texture, and color within a two-dimensional framework. A variety of media and techniques will be used, and an emphasis will be placed on color and design theory.

2 hours lecture, 4 hours studio.

ART 231 ‡ (SUN# ART 1115) Three-Dimensional Design and Sculpture (3)

Prerequisite(s): None.

Recommended Preparation: Art majors must have ART 103, ART 106, or permission of instructor.

An introduction to the basic elements of three-dimensional design: form, volume, space, mass, line, plane, proportion, balance, texture, structure, and site. Focus is on arranging these elements within a three-dimensional framework through techniques such as sculpting, carving, building, and assembling. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 245 ‡ Figure Drawing (3)

Prerequisite(s): ART 106 or permission of instructor.

An introduction to figure drawing using live models. Designed to develop perceptual and pictorial skills, with an emphasis on the human figure in its environment. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 270 ‡ Ceramics I (3)

Prerequisite(s): None.

Recommended Preparation: Art majors must have ART 103 or ART 106, and ART 231; or permission of instructor.

An introduction to clay and glaze, and to their contribution to the development of contemporary ceramic art. Covers techniques involved in the processes of hand building and wheel throwing. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 273 ‡ Ceramics IIA (3)

Prerequisite(s): ART 270.

Recommended Preparation: In addition, art majors must have ART 103, ART 106, and ART 231; or permission of instructor.

A continuation of ART 270 which includes intermediate and advanced hand-building techniques and fabrication methods. Students develop projects with formal elements, build skills in surface treatment and firing, and explore topics on the history of clay. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 274 ‡ Ceramics IIB (3)

Prerequisite(s): ART 270.

Recommended Preparation: In addition, art majors must have ART 103, ART 106, and ART 231; or permission of instructor.

A continuation of ART 270 which includes intermediate and advanced wheel-throwing techniques and fabrication methods. Students develop projects with formal elements, build skills in surface treatment and firing, and explore topics on the history of clay. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 275 ‡ Ceramics III (3)

Prerequisite(s): ART 273 or ART 274.

Recommended Preparation: In addition, art majors must have ART 103, ART 106, and ART 231; or permission of instructor.

A continued study of ceramics with emphasis on developing unique, creative skills in hand building and fabrication or in wheel throwing and trimming. Students work on projects involving formal elements and various firing techniques, and they explore topics on the history of clay. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 276 ‡ Soda and Salt Firing (1)

Prerequisite(s): ART 270 and concurrent enrollment in ART 231, ART 275, ART 290, or ART 292.

Recommended Preparation: ART 275.

An introduction to the traditional advanced process of soda and salt firing of ceramics. Topics include kiln loading, the use of refractory materials, and the introduction of sodium. Students will experiment with various techniques and materials, including clay bodies, slips, engobes, oxides, and glazing. They will also explore historical and contemporary approaches to atmospheric sodium firings. For students interested in art for career opportunities or for personal growth and self-expression.

1 hour lecture, 1 hour studio.

ART 280 ‡ Painting I (3)

Prerequisite(s): None.

Recommended Preparation: Art majors must have ART 103, ART 106, or permission of instructor.

An introduction to the techniques of either oil or acrylic painting, with emphasis on color theory and mixing. Also covers the preparation of various painting surfaces. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 281 ‡ Painting II (3)

Prerequisite(s): ART 280 or permission of instructor.

Recommended Preparation: In addition, art majors must have ART 103 and ART 106, or permission of instructor.

A continued study of either oil or acrylic painting, with emphasis on developing unique, expressive pictorial skills. Also covers

three-dimensional techniques. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 285 ‡ Beginning Photography (3)

Prerequisite(s): None.

An introduction to cameras and the darkroom. Covers techniques involved in black-and-white film development and printing as well as principles and elements of design and aesthetics in photography. Students must have access to an adjustable 35mm camera.

2 hours lecture, 4 hours studio.

ART 286 ‡ Intermediate Photography (3)

Prerequisite(s): ART 285 or permission of instructor.

An intermediate course in photography for those with a foundation in the basics of black-and-white film exposure, development, and printing. Emphasis is on photojournalism, art photography, portraiture, and landscapes, with additional attention to design and aesthetics. Students must have access to an adjustable 35mm camera.

2 hours lecture, 4 hours studio.

ART 290 ‡ Sculpture I (3)

Prerequisite(s): None.

Recommended Preparation: Art majors must have ART 103 or ART 106, and ART 231; or permission of instructor.

An introduction to traditional and contemporary sculptural concepts, mediums, and techniques. Students are involved in the process of selecting raw materials and creating a sculpture. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 291 ‡ Sculpture II (3)

Prerequisite(s): ART 290.

Recommended Preparation: In addition, art majors must have ART 103, ART 106, and ART 231; or permission of instructor.

A continuation of ART 290 which covers traditional and contemporary sculpture concepts, mediums, and techniques, with emphasis on basic designs. Students expand their ideas and develop their craftsmanship on sculptural forms. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 292 ‡ Advanced Topics in Art (0.5-4)

Prerequisite(s): None.

A rotating forum/seminar/workshop emphasizing regional art forms and the development and practical application of artistic skills using a variety of media. Topics will vary in accordance with changes in student needs and interests. Cochise College elective credit only unless otherwise designated in degree programs. For students interested in art for career opportunities as well as personal growth and self-expression.

ART 293 ‡ Sculpture III (3)

Prerequisite(s): ART 291.

Recommended Preparation: In addition, art majors must have ART 103, ART 106, and ART 231; or permission of instructor.

A continuation of ART 291 which covers traditional and contemporary sculpture concepts, mediums, and techniques, with an emphasis on intermediate designs. Students continue to expand their ideas and develop their craftsmanship on sculptural forms. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 294 ‡ Sculpture IV (3)

Prerequisite(s): ART 293.

Recommended Preparation: In addition, art majors must have ART 103, ART 106, and ART 231; or permission of instructor.

A continuation of ART 293 which covers traditional and contemporary sculpture concepts, mediums, and techniques, with an emphasis on advanced designs, aesthetic forms, and fabrication methods. Students receive individual direction while working on projects involving formal elements and advanced techniques, and they explore the process involved in creating a sculptural form from raw material. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 295 ‡ Watercolor Painting I (3)

Prerequisite(s): None.

Recommended Preparation: Art majors must have ART 103, ART 106, or permission of instructor.

An introduction to watercolor painting which explores basic materials and techniques, with an emphasis on color theory and mixing. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 296 ‡ Watercolor Painting II (3)

Prerequisite(s): ART 295 or permission of instructor.

Recommended Preparation: In addition, art majors must have ART 103 and ART 106, or permission of instructor.

A continued study of watercolor painting, with emphasis on developing unique, expressive pictorial skills. For those interested in art as a career, or for personal growth and self-expression.

2 hours lecture, 4 hours studio.

ART 297 ‡ Portfolio Review (1)

Prerequisite(s): None.

Recommended Preparation: Three semesters of art coursework, including 200-level courses in chosen discipline, or permission of instructor.

A beginning through advanced studio course dealing with the process and purpose of artistic portfolios. This course will cover technical and aesthetic aspects of various artistic portfolios and their development and provide students with the opportunity for a critical/professional analysis and peer review of their portfolios.

0.5 hour lecture, 2 hours studio.

ASL - American Sign Language

ASL 101 * American Sign Language I (4)

Prerequisite(s): None.

An introduction to American Sign Language (ASL) which includes the development of sign vocabulary, fingerspelling, and

numbers, all at the beginner skill level. Also presents a brief history of ASL and an overview of Deaf culture.

4 hours lecture, 1 hour laboratory.

ASL 102 American Sign Language II (4)

Prerequisite(s): ASL 101 or permission of instructor.

A continuation of ASL 101 which further develops sign vocabulary, fingerspelling, and numbers, all at the advanced-beginner skill level. Also examines the Deaf community and Deaf culture in a hearing society.

4 hours lecture, 1 hour laboratory.

ASL 201 * American Sign Language III (4)

Prerequisite(s): ASL 102 or permission of instructor.

A continuation of ASL 102 which integrates receptive and expressive skills and presents grammar and syntax at the intermediate skill level. Covers idioms and introduces ASL linguistics and cross-cultural communication. Also examines complex issues related to the Deaf community and Deaf culture in a hearing society.

4 hours lecture, 1 hour laboratory.

ASL 202 * American Sign Language IV (4)

Prerequisite(s): ASL 201 or permission of instructor.

A continuation of ASL 201 which expands sign vocabulary and sharpens skills in fingerspelling, numbers, grammar, and syntax at the advanced-intermediate skill level. Offers further instruction in ASL linguistics and conversational techniques in a cross-cultural framework, and introduces passage translation. Also examines more complex issues related to the Deaf community and Deaf culture in a hearing society.

4 hours lecture, 1 hour laboratory.

AST - Astronomy

AST 180 *‡ Introduction to Astronomy (4)

Prerequisite(s): MAT 122.

A survey of astronomy, including the history of astronomy, celestial motion, terrestrial evolution, the solar system, structure and evolution of the stars, the Milky Way, galaxies and cosmology. Labs include nighttime observing sessions. Field trips to planetariums and observations will be included.

3 hours lecture, 3 hours laboratory.

AUT - Automotive Technology

AUT 101 Introduction to Automotive Technology (3)

Prerequisite(s): None.

This course provides an in-depth study of basic automotive vehicle systems. It includes basic operational knowledge concerning the care and maintenance of engine, fuel, ignition, suspension, brakes, electrical and drive-train systems.

2 hours lecture, 2 hours laboratory.

AUT 102 ‡ Automotive Electrical Fundamentals (3)

Prerequisite(s): None.

This course provides a study of automotive electrical and electronic fundamentals with an emphasis on Ohm's Law and its application in solving electrical system failures. An in-depth study is given on how to properly use wiring and current-flow diagrams in electrical diagnosis and repair. Course includes using industry-standard diagnostic equipment and techniques. The student will receive training in preparation to take the ASE Certification Test on Electrical/Electronic Systems.

2 hours lecture, 2 hours laboratory.

AUT 103 ‡ Internal Combustion Engines (3)

Prerequisite(s): AUT 101 and AUT 102.

A study of the theory of internal combustion engines, and of the diagnosis and repair of problems common to them. Students dismantle and reassemble engines in preparation for the Automotive Service Excellence (ASE) certification test on engine repair.

2 hours lecture, 3 hours laboratory.

AUT 104 ‡ Automotive Brake Systems (3)

Prerequisite(s): AUT 101 and AUT 102.

A study of the theory of automotive brake systems, and of the diagnosis and repair of problems common to them. Students repair and test various types of brake systems in preparation for the Automotive Service Excellence (ASE) Certification test on brake systems.

2 hours lecture, 3 hours laboratory.

AUT 105 ‡ Automotive Suspension and Steering Systems (3)

Prerequisite(s): AUT 101 and AUT 102.

A study of the theory of automotive suspension and steering systems, and of the diagnosis and repair of problems common to them. Students repair and test various suspension and steering systems in preparation for the Automotive Service Excellence (ASE) certification test on suspension and steering.

2 hours lecture, 3 hours laboratory.

AUT 106 ‡ Automotive Manual Drive Systems (3)

Prerequisite(s): AUT 101 and AUT 102.

A study of the theory of automotive manual drive systems, and of the diagnosis and repair of problems common to them. Students dismantle and reassemble different manual drive systems in preparation for the Automotive Service Excellence (ASE) certification test on manual drivetrain systems.

2 hours lecture, 3 hours laboratory.

AUT 107 Automotive Service Consultant (3)

Prerequisite(s): None.

This course will provide a study of the responsibilities of an automotive service consultant. It is designed to provide an understanding of how to maximize customer satisfaction and service facility profitability. Course content follows the tasks identified by Automotive Service Excellence (ASE) for Automotive Service Consultant testing.

3 hours lecture.

AUT 108 Automotive Parts Specialist (3)

Prerequisite(s): None.

This course will provide a study of the tasks performed by an automotive parts specialist in overseeing inventory responsibilities and in managing the flow of parts and accessories in and out of an automotive shop.

3 hours lecture.

AUT 110 ‡ Basic Auto Body Repair (3)

Prerequisite(s): None.

This course will provide a basic study of automotive collision repair procedures. The course is designed to provide students with the basic knowledge necessary to perform minor auto body repair and preparation for painting.

2 hours lecture, 2 hours laboratory.

AUT 111 ‡ Automotive Paint and Refinish (3)

Prerequisite(S): AUT 110.

A continuation of Basic Auto Body Repair that focuses on the necessary skills used to paint and refinish an automobile to commercially acceptable standards.

2 hours lecture, 2 hours laboratory.

AUT 201 ‡ Automotive Electrical Systems and Equipment (3)

Prerequisite(s): AUT 101 and AUT 102.

A study of the theory of automotive electrical systems and equipment, and of the diagnosis and repair of problems common to them, in preparation for the Automotive Service Excellence (ASE) certification test on electrical systems.

2 hours lecture, 3 hours laboratory.

AUT 204 ‡ Automatic Transmission/Transaxle Diagnostics and Rebuilding (3)

Prerequisite(s): AUT 101 and AUT 102.

A study of the theory of automatic transmissions and transaxles, and of the diagnosis and repair of problems common to them. Students dismantle and rebuild transmissions in preparation for the Automotive Service Excellence (ASE) certification test on automatic transmissions.

2 hours lecture, 3 hours laboratory.

AUT 205 ‡ Automobile Heating, Ventilation and Air Conditioning (3)

Prerequisite(s): AUT 101 and AUT 102.

An examination of the basic operating principles, diagnosis, and service of modern automotive heating, ventilation and air conditioning systems, including R12 and 134a systems. Includes a concentrated examination of how air conditioning systems operate, their diagnostic and their service procedures, and environmental concerns.

2 hours lecture, 2 hours laboratory.

AUT 206 ‡ Engine Performance (3)

Prerequisite(s): AUT 103.

A study of the theory of the components involved in engine performance, and of the diagnosis and repair of problems common to them, in preparation for the Automotive Service Excellence (ASE) certification test on engine performance.

2 hours lecture, 3 hours laboratory.

AUT 207 Automotive Service Management (3)

Prerequisite(s): AUT 107 and AUT 108, or permission of instructor.

Designed for those interested in a career in automotive service, this course provides a study of the responsibilities of an automotive service manager/director.

3 hours lecture.

AUT 210 ASE Test Preparation (3)

Prerequisite(s): AUT 103, AUT 104, AUT 105, AUT 106, AUT 201, AUT 204, and AUT 205; or permission of instructor.

This course reviews the skills and knowledge required to pass Automotive Service Excellence (ASE) certification tests A1 thru A8. This course is for experienced technicians as well as for students who have completed the required automotive courses.

3 hours lecture.

AUT 224 Field Experience in Automotive Technology (1-6)

Prerequisite(s): Prior approval of the cooperative education program coordinator.

Recommended Preparation: One semester of Cochise College AUT coursework and declared major in automotive technology.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career skills objectives in the automotive field.

AVT - Avionics Technology

AVT 104 ‡ Introduction to Electronics (7)

Prerequisite(s): One year of high school algebra.

An introduction to direct current (DC) and alternating current (AC) circuits, with emphasis on Ohm's Law, Kirchoff's Law, and network theorems used in the analysis of basic electronic circuits. Also teaches the algebra and trigonometry used in electronics, including real number systems, linear equations, exponents, and graphing.

6 hours lecture, 2 hours laboratory.

AVT 107 ‡ Avionics Fundamentals to Include Unmanned Aerial Systems (4)

Prerequisite(s): AVT 104 or concurrent enrollment.

An introduction to avionics fundamentals with emphasis on the navigation and communication systems required to support flight operations including those necessary for unmanned aerial systems.

3 hours lecture, 2 hours laboratory.

AVT 112 ‡ Electronic Devices and Circuits I (8)

Prerequisite(s): AVT 104.

A study of semiconductor devices at the operational level. Emphasis is on the analysis of diodes, power supplies, filters, transistors, frequency responses, feedback, and field effect transistor amplifiers. Also covers DC biasing, AC signal analysis, load lines, hybrid parameters, and multi-stage systems.

6 hours lecture, 4 hours laboratory.

AVT 115 ‡ Digital and Microprocessor Fundamentals (8)

Prerequisite(s): AVT 104.

A study of digital concepts, logic elements, control applications, programming, interfacing, basic networking, and networking to data links. Emphasis is on combinational and sequential logic, and on the memory and support circuits of various components of microcomputers.

7 hours lecture, 2 hours laboratory.

AVT 202 ‡ Electronic Communications to Include Unmanned Aerial Systems (8)

Prerequisite(s): AVT 112.

A study of communications and circuits, including those used in unmanned aerial systems. Topics include amplitude modulation and frequency modulation techniques as well as microwave technology and data communications. Covers radio transmitters, receivers, antennas, filters, coupling, frequency synthesizers, phased locked loops, and fiber optics. Also covers high-tech communication components, circuits, and equipment.

6 hours lecture, 4 hours laboratory.

AVT 205 ‡ Electronic Devices and Circuits II (4)

Prerequisite(s): AVT 112.

A continuation of the study of semiconductor devices including metal oxide semiconductor field effect transistors (MOSFETs), operational amplifiers, thyristors, optical electronic devices, unijunction transistors, and other electronic devices. Emphasis is on the analysis and application of practical amplifier circuits, negative feedback, oscillators, solid-state switching circuits, and silicon-controlled rectifiers.

3 hours lecture, 2 hours laboratory.

AVT 208 FCC/FAA Regulations (3)

Prerequisite(s): AVT 112 and AVT 115.

An in-depth preparation for the Federal Communications Commission examination, and an introduction to the Federal Aviation Administration and its rules and regulations.

3 hours lecture.

AVT 211 Unmanned Aerial Vehicle Avionics (9)

Prerequisite(s): AMT 210 or concurrent enrollment, and sponsored employment with the Department of Defense or with a DOD UAV contractor.

A study of unmanned aerial vehicle avionics focusing on development of the knowledge and skills necessary to safely operate, inspect, troubleshoot, and repair Hunter Unmanned Aerial Vehicle (UAV) avionics systems and subsystems down to the lowest replaceable unit (LRU). Emphasis on shelter theory of operation, performance criteria, data link operation, electrical power systems, emergency recovery systems and ground support equipment.

4 hours lecture, 13 hours laboratory.

AVT 218 ‡ Unmanned Aerial Systems and Ground Control Stations (4)

Prerequisite(s): AVT 107, AVT 220, and AVT 228.

A study of unmanned aerial systems and their capabilities, of ground control stations, and of electrical power and flight computer sub-systems. Topics include automated takeoff and landing systems, navigation sub-systems, data link sub-systems and data processing equipment, tactical communication sub-systems, and ground control workstations.

3 hours lecture, 2 hours laboratory.

AVT 220 ‡ Navigation Systems to Include Unmanned Aerial Systems (4)

Prerequisite(s): AVT 107.

An in-depth study of the aerial systems navigation, communications, and avionic sub-systems interfacing--to include unmanned aerial systems and ground station systems--required to support flight operations for a variety of aircraft.

3 hours lecture, 2 hours laboratory.

AVT 224 Autopilot and Control Systems to Include Unmanned Aerial Systems (3)

Prerequisite(s): AVT 107.

An in-depth analysis of the principles and operations of autopilot and control systems including those used in unmanned aerial systems.

3 hours lecture.

AVT 228 ‡ Aircraft Radar Systems to Include Unmanned Aerial Systems (4)

Prerequisite(s): AVT 107.

A study of waveforms, nonlinear waveshaping, and multi-vibrators. Includes an in-depth study of avionics with emphasis on the radar and pulsed radar systems required to support in-flight operations for a variety of aircraft including those in unmanned aerial systems.

3 hours lecture, 2 hours laboratory.

BCT - Building Construction Technology

BCT 100 Technical Mathematics I (3)

Prerequisite(s): None.

A review of arithmetic and the study of fundamentals of algebra and geometry applied to practical problems of the drafting room, machine shop, and engineering.

3 hours lecture.

BCT 102 ‡ Carpentry Fundamentals (4)

Prerequisite(s): None.

An introduction to fundamental carpentry techniques. Students learn and apply these techniques to develop basic skills comparable to those acquired in a one-year carpentry apprenticeship. Focus is on shop safety, hand and power tools, floor systems, wall, ceiling, and roof framing, building materials, fasteners and adhesives, plans and elevations, concrete work, windows and doors, and basic stair layout.

3 hours lecture, 3 hours laboratory.

BCT 103 International Residential Building Codes (3)

Prerequisite(s): None.

This course is an introduction to the current international residential building codes for one and two family dwellings. The codes' relationship to local code enforcement and blueprint reading will be covered. Inspectors, contractors, designers, draftsmen, and anyone associated with the building industry will benefit from this course.

3 hours lecture.

BCT 104 ‡ Electric I (4)

Prerequisite(s): None.

An introduction to fundamental electrical theory and techniques. Students learn and apply these techniques to develop basic skills comparable to those acquired in a one-year electrical apprenticeship. Focus is on electrical safety, circuits and theory, and on the National Electrical Code, device boxes, conduit, raceways and fittings, conductors and cables, electrical drawings, residential services, and test equipment.

3 hours lecture, 3 hours laboratory.

BCT 105 Electrical Theory (3)

Prerequisite(s): None.

Concepts explained in this course on Electrical Theory are the foundation to understanding electricity in the electrical world. Ohms law, series and parallel circuit, power factor and efficiency, electrical fundamentals and meters, motors, generators, transformers, and harmonics will be some of the topics covered.

3 hours lecture.

BCT 106 National Electrical Code I (3)

Prerequisite(s): None.

This course focuses attention on the National Electrical Code Articles 90 - 400. This course is for anyone in the electrical field to include electricians, inspectors, and maintenance workers. National Electrical Code I covers the general wiring requirements.

3 hours lecture.

BCT 107 ‡ Home Maintenance (3)

Prerequisite(s): None.

A do-it-yourself home maintenance course covering use of common hand and power tools for routine electrical, carpentry, and plumbing repairs.

3 hours lecture, 1 hour laboratory.

BCT 108 Basics in Construction (2)

Prerequisite(s): None.

Students will receive a working knowledge of shop safety and the use of basic hand and power tools. They will learn the soft skills necessary to be successful in the construction industry. Students successfully completing this course will receive the Core Curriculum Certificate, which is required before any other certification in the National Center for Construction Education and Research (NCCER) curriculum.

2 hours lecture.

BCT 109 Construction Safety (3)

Prerequisite(s): None.

An introduction to the Occupational Safety and Health Administration's workplace and jobsite safety policies and procedures. Includes a study of safety practices, preventative measures, construction hazards, personal protective devices and equipment, and hazardous materials handling.

3 hours lecture.

BCT 110 ‡ Cabinetmaking (3)

Prerequisite(s): None.

This course will provide the students with a basic working knowledge of cabinetmaking. Students will acquire competency in constructing and installing cabinets and countertops.

2 hours lecture, 3 hours laboratory.

BCT 111 ‡ Plumbing I (4)

Prerequisite(s): None.

An introduction to fundamental plumbing techniques. Students learn and apply these techniques to develop basic skills comparable to those acquired in a one-year plumbing apprenticeship. Focus is on plumbing safety, tools, math skills, and drawings; plastic, copper, and carbon steel pipes and fittings; tubing, fixtures, and faucets; drain, waste, and vent systems; and water distribution systems.

3 hours lecture, 3 hours laboratory.

BCT 112 Introduction to the Utility Industry (3)

Prerequisite(s): None.

An introduction to the utility industry and careers such as electric utility line technician, gas industry technician, telecommunications technician, and utility supervisor. Topics include utility infrastructures, land and gas surveying techniques, power delivery, basic safety principles, systems troubleshooting, and regulatory issues.

3 hours lecture.

BCT 122 ‡ HVAC I (3)

Prerequisite(s): None.

An introductory course in the refrigeration process that covers types of refrigerants, tools and equipment, and refrigerant management. Emphasis is on the recovery, recycling, and reclamation of refrigerants.

2 hours lecture, 3 hours laboratory.

BCT 127 Blueprint Reading and Estimating (3)

Prerequisite(s): None.

A course to provide the student with proficiency in reading and understanding blueprints and their use in locating plumbing, electrical and waste disposal systems. The student will learn the symbols and abbreviations used by architects and draftsmen, how to apply them to construction applications, and how to estimate material from architectural specifications.

3 hours lecture.

BCT 130 Introduction to Green Building (3)

Prerequisite(s): None.

An introduction to the fundamentals of green or sustainable building practices. Topics include energy use and efficiency, renewable energy technologies, water conservation, and basic building sciences. Also examined are the history of the green building industry, building retrofitting, rating and certification systems, sustainable materials, and careers within the industry.

3 hours lecture.

BCT 201 ‡ Carpentry Framing and Finishing (4)

Prerequisite(s): BCT 102 or permission of instructor.

A study of carpentry framing and finishing techniques. Students learn and apply these techniques to develop advanced skills comparable to those acquired in a two-year carpentry apprenticeship. Focus is on roofing, thermal and moisture protection, exterior finishing, steel framing, drywall installation and finishing, doors and door hardware, suspended ceilings, trim work, and cabinet installation and fabrication.

3 hours lecture, 3 hours laboratory.

BCT 202 ‡ Carpentry Forms (4)

Prerequisite(s): BCT 102 or permission of instructor.

A study of advanced carpentry techniques as they relate to concrete-form framing, placement, pouring, and finishing. Students develop skills operating circular and reciprocating saws, drills, impact wrenches, hand power planers, pneumatic nail guns, and various hand tools of the trade; and they develop proficiency comparable to that of a third-year carpentry apprentice.

3 hours lecture, 3 hours laboratory.

BCT 204 ‡ Electric II (4)

Prerequisite(s): BCT 104.

An introduction to advanced electrical theory and techniques. Students learn and apply these techniques to develop advanced skills comparable to those acquired in a two-year electrical apprenticeship. Focus is on alternating current, motors, electric lighting, conduit bending, pull and junction boxes, conductor installations, terminations and splices, grounding and bonding, circuit breakers and fuses, and control systems.

3 hours lecture, 3 hours laboratory.

BCT 210 ‡ Cabinetmaking II (3)

Prerequisite(s): BCT 110.

This course provides students with a better understanding of, and increased skills in, the design, style, and construction of cabinets and countertops.

2 hours lecture, 3 hours laboratory.

BCT 211 ‡ Cabinetmaking III (3)

Prerequisite(s): BCT 110 and BCT 210, or permission of instructor.

This course prepares students for employment in the areas of finish carpentry, cabinetmaking, cabinet installation, and countertop manufacturing and installation.

2 hours lecture, 3 hours laboratory.

BCT 220 Grounding and Bonding (3)

Prerequisite(s): None.

Recommended Preparation: BCT 104, BCT 105, BCT 106, and BCT 204.

This course covers Article 250 of the National Electric Code. It concentrates on the theories of grounding and bonding and on the wiring methods involved. This provides complete in-depth understanding of the differences between grounding and bonding of everything from service equipment to swimming pools.

3 hours lecture.

BCT 222 ‡ HVAC II (3)

Prerequisite(s): BCT 122.

A continuation of the fundamentals of refrigeration that covers electrical troubleshooting, and the functions of motors, controls, and other components of refrigeration systems—evaporators, condensers, compressors, and expansion devices.

2 hours lecture, 3 hours laboratory.

BCT 223 ‡ HVAC III (4)

Prerequisite(s): BCT 222.

An introduction to the various types of air conditioning systems that covers superheating, subcooling, pressures, and temperatures. Emphasis is on troubleshooting and repair.

4 hours lecture.

BCT 224 Field Experience in Building Construction Technology (1-6)

Prerequisite(s): Prior approval of the cooperative education program coordinator.

Recommended Preparation: One semester of Cochise College BCT coursework and declared major in building construction technology.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career skills objectives in the building/construction field.

BCT 225 ‡ HVAC IV (4)

Prerequisite(s): BCT 223.

An advanced course in heating, ventilating, and air conditioning that covers the installation, operation, and repair of heat pumps and other modern heating equipment.

2 hours lecture, 4 hours laboratory.

BIO - Biological Sciences

BIO 100 *‡ General Biology (for non-majors) (4)

Prerequisite(s): RDG 122 or exemption.

A laboratory science course for non-majors that surveys the concepts of introductory biology. Topics include scientific inquiry, cell biology, metabolism, cell division, genetics, evolution, ecology, and a survey of life on Earth.

3 hours lecture, 3 hours laboratory.

BIO 105 ‡ Environmental Biology (4)

Prerequisite(s): None.

Recommended Preparation: MAT 081 and ENG 101.

Fundamentals of ecology and their relevance to human impact on natural ecosystems. An introductory course in environmental biology with emphasis on the major themes of ecology and environmental biology. The student will receive instruction covering evaluation of scientific data, resource management, principles of ecology, human ecology, ethics and politics of the environment movement. Open to non-biology majors.

3 hours lecture, 3 hours laboratory.

BIO 156 ‡ Introductory Biology for Allied Health (4)

Prerequisite(s): RDG 122 or exemption.

Recommended Preparation: MAT 081 or higher.

An introductory course for allied health majors which concentrates on human biology. Covers the fundamental concepts of chemistry and biology including cell biology, metabolism, microbiology, genetics, evolution, and histology.

3 hours lecture, 3 hours laboratory.

BIO 160 *‡ Introduction to Human Anatomy and Physiology (4)

Prerequisite(s): RDG 122 or exemption.

Recommended Preparation: ENG 101 and MAT 081.

An examination of the structure and dynamics of the human body based on the chemical, physical, cellular, and tissue levels of organization. Includes the major structures and functions of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. For students in programs that require a one-semester anatomy and physiology course, or for students fulfilling a one-semester laboratory science requirement.

3 hours lecture, 3 hours laboratory.

BIO 181 ‡ (SUN# BIO 1181) General Biology I (for majors) (4)

Prerequisite(s): RDG 122 or exemption.

Recommended Preparation: CHM 130, CHM 138, or one year of high school chemistry; ENG 100; and some knowledge of college algebra and/or trigonometry.

A study of the structure and function of living things at the molecular, cellular, and organismic levels of organization. Topics include cell structure, metabolism, reproduction, genetics, and evolution.

3 hours lecture, 3 hours laboratory.

BIO 182 ‡ (SUN# BIO 1182) General Biology II (4)

Prerequisite(s): BIO 181.

Recommended Preparation: General Chemistry.

Additional principles of structure and function of living things at molecular, cellular and organismic and higher levels of organization.

3 hours lecture, 3 hours laboratory.

BIO 192 Special Topics and Applications in Biology (0.25-4)

Prerequisite(s): None.

Recommended Preparation: Permission of the instructor is strongly recommended.

A rotating forum/seminar/course or supplement to an existing biology course emphasizing biology related topics. The title and credit hours for this course will vary each term depending on the topic.

BIO 201 *‡ (SUN# BIO 2201) Human Anatomy and Physiology I (4)

Prerequisite(s): BIO 156 or BIO 181.

Recommended Preparation: CHM 138.

An integrated study of the physical, structural, and functional features of tissues, and of the integumentary, skeletal, muscular, and nervous systems.

3 hours lecture, 3 hours laboratory.

BIO 202 ‡ (SUN# BIO 2202) Human Anatomy and Physiology II (4)

Prerequisite(s): BIO 201.

An integrated study of the physical, structural, and functional features of the endocrine, cardiovascular, respiratory, lymphatic, urinary, digestive, and reproductive systems.

3 hours lecture, 3 hours laboratory.

BIO 205 ‡ (SUN# BIO 2205) Microbiology (4)

Prerequisite(s): BIO 156 or BIO 181.

Recommended Preparation: ENG 101 and MAT 081.

A study of the structure and characteristics of the major groups of microorganisms and their importance to humans. Emphasis is on best methods for the control and treatment of microbial infection and disease.

3 hours lecture, 3 hours laboratory.

BIO 226 ‡ Ecology (4)

Prerequisite(s): MAT 081, ENG 101, and either BIO 100, BIO 105, BIO 160, BIO 181, or BIO 201.

An introduction to ecological concepts and methods in biology including: ecological niche, species diversity, population biology, ecosystems, life history strategies, environmental factors, environmental cycles, animal behavior and evolution, and their functions in the environment.

3 hours lecture, 3 hours laboratory.

BIO 299 Individual Studies (1-4)

Prerequisite(s): Approval of appropriate instructional manager and instructor.

Completion of a research problem or an outlined course of study under the direction of a faculty member, with contract for the individual study agreed upon by the student, the instructor, and the appropriate instructional manager prior to the initiation of the study.

BUS - Business Administration

BUS 101 Computer Keyboarding (3)

Prerequisite(s): None.

Specifically designed for (but not limited to) students with no knowledge of touch keyboarding or prior computer experience. Skill development on keyboarding techniques will be utilized to develop speed and accuracy on the computer keyboard.

3 hours lecture.

BUS 104 Business Math (3)

Prerequisite(s): None.

Recommended Preparation: Knowledge of basic mathematics.

This course examines the fundamentals of business mathematics and the use of the number language to communicate in the business world.

3 hours lecture.

BUS 106 Administrative Assistant Skills I (4)

Prerequisite(s): CIS 116 and keyboarding skills of 30 WPM.

Continued development of keyboarding and techniques needed to master letter styles, tables, memos, and reports with an expected outcome of 35 wpm for three minutes. Class will emphasize text-editing and text formatting techniques.

3 hours lecture, 2 hours laboratory.

BUS 109 * Survey of American Business (3)

Prerequisite(s): None.

This course examines the fundamental characteristics and functions of modern business, with emphasis on career opportunities.

3 hours lecture.

BUS 123 * Human Resource Management (3)

Prerequisite(s): None.

A study of human resource management policies and techniques pertaining to the recruitment, selection, development, compensation, evaluation, retention, and promotion of personnel within an organization.

3 hours lecture.

BUS 125 Management and Organizational Behavior (3)

Prerequisite(s): None.

Study of actions and attitudes of people in organizations. Focuses on the study of group behavior, interpersonal and inter-group relationships in an organization. Conceptual tools for analyzing behavior and managing group processes of conflict, communication and task accomplishments.

3 hours lecture.

BUS 127 * Leadership and Supervision (3)

Prerequisite(s): None.

In-depth study of the supervision and leadership functions in management. Case studies emphasized.

3 hours lecture.

BUS 143 Principles of Management (3)

Prerequisite(s): None.

A study of managerial principles emphasizing effective business decisions for planning, organizing, leading, and motivating, and for controlling variables in today's changing global business environment. Also covers issues of ethics, social responsibility, diversity, and ethnicity.

3 hours lecture.

BUS 145 * Principles of Marketing (3)

Prerequisite(s): None.

A study of marketing principles involved in the distribution of goods and services from the producer to the ultimate consumer, including functions of wholesaling, retailing, direct selling, risk taking, and storage.

3 hours lecture.

BUS 146 * Introduction to Accounting (3)

Prerequisite(s): None.

Recommended Preparation: BUS 104 or MAT 122.

The basic accounting cycle for service and merchandising firms: analyzing business transactions, journalizing and posting entries, developing financial statements, administering end-of-accounting-period activities, controlling cash, and preparing payroll.

3 hours lecture, 1 hour laboratory.

BUS 150 * Business Ethics (3)

Prerequisite(s): None.

An introductory course in the application of moral philosophy to contemporary ethical and moral problems in business; an examination of individual, organizational, and macro-level issues in business ethics. It will provide students with a framework that they can use to identify, analyze, and control ethical issues in business decision making.

3 hours lecture.

BUS 160 * Essential Workplace Success Skills (3)

Prerequisite(s): None.

A study of problem areas workers may encounter in obtaining and maintaining their employment, including job seeking skills, professional dress, decision making strategies, self-esteem, job stress, communication skills and coping with stress.

3 hours lecture.

BUS 167 * Business Communications (3)

Prerequisite(s): CIS 116 and placement in ENG 101.

A study of business communications prepared in a business organization, including typical internal and external communications (letters, memos, proposals and reports). Emphasis will be on applying English fundamentals, usage, syntax, and organization ideas as well as on using technology appropriately to conduct research and to create documents. This course will also stress listening and speaking skills.

3 hours lecture.

BUS 170 * Understanding and Managing Conflict (3)

Prerequisite(s): None.

A study of the causes of conflict and its personal and interpersonal effects. Includes an analysis of the impact of both healthy and unhealthy conflict on organizational and personal goal achievement. Provides conceptual and practical tools to effectively minimize, manage, and resolve conflict resulting from social interaction and interpersonal communication. Identical to SOC 170.

3 hours lecture.

BUS 172 * Quantitative Methods in Business (3)

Prerequisite(s): MAT 151 or permission of instructor.

Recommended Preparation: Knowledge of Excel spreadsheets or completion of CIS 181.

This course concentrates on business applications of quantitative optimization methods in operations management decisions. Quantitative methods and modeling to support business decision making will be the focus.

3 hours lecture.

BUS 183 * Starting a Business (3)

Prerequisite(s): None.

Recommended Preparation: Computer and Internet literacy.

A primer on business success emphasizing investigation and evaluation of business opportunities. The course also will emphasize the acquisition of skills and knowledge to establish the business, including practical problems in marketing, financial analysis and control, and management and organization.

3 hours lecture.

BUS 193 Current Office Applications (1)

Prerequisite(s): None.

One-unit modules designed for personal/professional improvement. Principles and practice of various office applications; each session covering mastery of a particular application, with emphasis on the effective use of the application under study.

1 hour lecture.

BUS A193 Excel I

BUS B193 Excel II
BUS C193 Excel III

BUS 201 * (SUN# ACC 2201) Financial Accounting (3)

Prerequisite(s): BUS 104, MAT 123, or placement in MAT 151.

Recommended Preparation: Knowledge of Excel spreadsheets or completion of CIS 181.

An introductory course in gathering, recording, and using the financial data of a business. Focus is on the accounting cycle, debits and credits, classification of accounts, recording of transactions, and preparation of financial statements for single proprietorships, partnerships and corporations.

3 hours lecture, 2 hours laboratory.

BUS 202 * (SUN# ACC 2202) Managerial Accounting (3)

Prerequisite(s): BUS 201 and CIS 181.

An introductory course in accounting concepts, methods, and techniques used by managers to support financial and operational decision making within an organization.

3 hours lecture, 2 hours laboratory.

BUS 206 Administrative Assistant Skills II (4)

Prerequisite(s): BUS 106 or BUS 213.

A study of advanced formatting preparation skills needed to become proficient at typing business letters, printed forms, manuscripts, and tabulation problems in the employment field through the use of individualized units of work with an expected outcome of 40 wpm for 5 minutes.

3 hours lecture, 2 hours laboratory.

BUS 207 Office Administration (3)

Prerequisite(s): CIS 116 and BUS 167, or permission of instructor.

An analysis of functions of office departments, their organization and administration; management principles and functions; problem-solving techniques; human relations issues, communication, employee selection, training, information technology tools, and legal implications for the office supervisor. This course is designed for prospective office supervisors, training directors, administrative assistants, and executive secretaries.

3 hours lecture.

BUS 209 Business Speech Communications (3)

Prerequisite(s): None.

A study of the principles of business speech communications, choosing appropriate topics, researching techniques, organizing material, analyzing audiences, and delivering courtesy, information, demonstration, and persuasive speeches to small and large groups. This course will also integrate the skills of perception, listening, language, speech, nonverbal communication, one-on-one, and effective interviewing techniques.

3 hours lecture.

BUS 210 Automated Office Procedures (3)

Prerequisite(s): CIS 116 and CIS 181, or permission of instructor.

A project-oriented study of administrative office procedures including using computer applications, career, human relations, basic duties, information processing, special duties, administrative responsibilities, communication and professional growth. Workflow procedures and standards will be included. The course is designed to help develop the accuracy necessary to apply this knowledge to a variety of data entry situations: spreadsheets, databases, accounting, banking, on-line point-of-sale entries, and other numeric computer-related applications.

3 hours lecture.

BUS 211 Automated Office Practice (3)

Prerequisite(s): BUS 210 or BUS 216.

A project-oriented comprehensive study of administrative office practices including the career, human relations, basic duties, information processing, special duties, administrative responsibilities and professional growth. Workflow procedures, standards, written and oral communications and group problem solving will be included.

3 hours lecture, 1 hour laboratory.

BUS 213 Word Processing (3)

Prerequisite(s): CIS 116.

A study of current word processing concepts, systems, and equipment emphasizing text editing and text formatting techniques. Prerequisite keying speed of 25 wpm suggested. Course not required for the Professional Administrative Assistant AAS degree.

3 hours lecture, 1 hour laboratory.

BUS 214 Advanced Word Processing (3)

Prerequisite(s): BUS 213 or permission of instructor.

An advanced study of word processing concepts, software, equipment and required skills for career usage using special entry/editing techniques. Course not required for the Professional Administrative Assistant AAS degree.

3 hours lecture, 1 hour laboratory.

BUS 216 Administrative Assistant Skills III (4)

Prerequisite(s): CIS 116 and CIS 181, or permission of instructor.

This course covers intermediate microcomputer applications including word processing, spreadsheets, databases, presentations, and integration of the applications. Topics include form letters, merging, desktop publishing, financial functions, amortization schedules, data tables, creating and querying a worksheet database, templates, creating customized database reports/forms and managing switchboards, embedded visuals, and importing clips into presentation software. Student electronic employment portfolios will be developed.

3 hours lecture, 2 hours laboratory.

BUS 217 Administrative Assistant Skills IV (4)

Prerequisite(s): BUS 216 or permission of instructor.

This course covers advanced applications including word processing, spreadsheet, database, presentation, and integration of the applications. Word processing topics include creating an index, a table of contents, online forms, merging e-mail form letters using a database, and using VBA with word processing. Spreadsheet topics include macros, Visual Basic for Applications (VBA), Solver, data validation, password protection, Scenario Manager, PivotCharts, PivotTables, PivotTable lists, importing data, tracking changes, Send To command, and Data Maps. Database topics include creating a report using design view, customizing forms

using VBA, working with charts and PivotTable objects, administering a database, SQL, and database data in other applications. Presentation topics include creating a self-running presentation using animation effects; using VBA with presentations; and distributing presentations to remote audiences. A capstone course electronic employment portfolio will be completed.

3 hours lecture, 2 hours laboratory.

BUS 219 * (SUN# BUS 2201) Business Statistics (3)

Prerequisite(s): MAT 142 or MAT 151.

Recommended Preparation: Knowledge of Excel spreadsheets or completion of CIS 181.

Business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management.

3 hours lecture.

BUS 224 Field Experience in Business Administration (1-6)

Prerequisite(s): A declared major in business administration and prior approval of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career objectives in business administration.

BUS 227 Field Experience in Legal Procedures (1-6)

Prerequisites: Prior approval of the cooperative education program coordinator. Student must have the skills necessary for requirements of particular co-op job setting.

Recommended Preparation: Faculty member recommendation in discipline related to this course.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career skills objectives related to the pre-law, legal, or public administration field.

BUS 228 * Financial Planning (3)

Prerequisite(s): BUS 104, BUS 146, or BUS 201.

An introduction to the principles and techniques of personal financial planning, including preparation of personal financial statements; budgeting; goal setting; investing; determining insurance needs; and tax, retirement, and estate planning. A strong emphasis is placed on the process of drawing up a personal financial plan.

3 hours lecture.

BUS 233 * The Legal Environment of Business (3)

Prerequisite(s): None.

An examination of the legal framework that governs the rules of conduct affecting policy making among businesses. Topics include laws, torts, government regulations, business ethics, and corporate responsibility in today's business environment.

3 hours lecture.

BUS 245 Seminar: Trends and Practices in Business (3)

Prerequisite(s): BUS 146; BUS 160; BUS 167 or concurrent enrollment; ECN 201 or ECN 202; ENG 101; and BUS 104 or MAT 123 or higher.

Recommended Preparation: Sophomore standing.

A capstone business management course applying problem-solving and decision-making techniques to practical business situations. Students produce a major project or presentation using current business theories and practices.

3 hours lecture.

BUS 282 Management Information Systems (3)

Prerequisite(s): CIS 116 or CIS 120.

A study of the management sciences involved in meeting the informational needs of business, industry, governmental and educational agencies; a study of skills and knowledge of man versus machine to develop and design data processing systems in a problem-oriented approach.

2 hours lecture, 1 hour laboratory.

BUS 283 * Small Business Management (3)

Prerequisite(s): BUS 183.

Analysis of the practical problems of organizing and managing a successful small business. Practical problems in marketing, research, financial analysis and control, budgeting, management, and organization for small businesses are emphasized with the aid of the microcomputer.

3 hours lecture, 1 hour laboratory.

BUS 285 * Electronic Commerce (3)

Prerequisite(s): CIS 116, CIS 120, or CIS 185.

Examines the components and practices of electronic commerce. Addresses advertising and marketing on the World Wide Web. Examines security and payment systems to support online transactions. Introduces writing web pages for business.

3 hours lecture.

CED - Cooperative Education

CED 224 Field Experience in Cooperative Education (1-6)

Prerequisite(s): A declared major at Cochise College. Permission and approval of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing or sufficient coursework necessary for development of discipline-related skills.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career objectives in liberal ats and related fields.

CHM - Chemistry

CHM 092 Special Topics and Applications in Chemistry (0.25-3)

Prerequisite(s): None.

Recommended Preparation: Permission of the instructor is strongly recommended.

A rotating forum/seminar/course or supplement to an existing chemistry course emphasizing chemistry related topics. The title and credit hours for this course will vary each term depending on the topic.

CHM 128 ‡ Forensic Chemistry (4)

Prerequisite(s): MAT 081 or higher.

A one-semester course introducing the fundamentals of chemistry with emphasis placed on principles important to understanding forensic science. Topics include an introduction to the interdisci-

plinary nature of forensic science, the identification, evaluation and preservation of physical and chemical evidence found at crime scenes, and methods for analyzing such evidence. Additional topics include an introduction to nuclear chemistry, the structure and analysis of drugs, and DNA structure and its importance in criminal investigation. Open to science and non-science majors.

3 hours lecture, 3 hours laboratory.

CHM 130 *‡ (SUN# CHM 1130) Fundamental Chemistry (4)

Prerequisite(s): MAT 081 or higher, and RDG 122 or exemption.

Introduces students with no prior chemistry instruction to the fundamentals of general inorganic chemistry, and prepares them for General Chemistry I.

3 hours lecture, 3 hours laboratory.

CHM 138 *‡ Chemistry for Allied Health (4)

Prerequisite(s): MAT 081 or higher, and RDG 122 or exemption.

An introduction to the fundamentals of general inorganic, organic, and biological chemistry focusing on the principles important to the understanding of human biological functions and their related medical aspect. Especially adapted to the needs of students in health related fields and nursing.

3 hours lecture, 3 hours laboratory.

CHM 151 ‡ (SUN# CHM 1151) General Chemistry I (4)

Prerequisite(s): CHM 130, CHM 138, or one year of high school chemistry; MAT 122 or higher; and RDG 122 or exemption.

An introduction to the general principles of inorganic chemistry, with focus on quantitative relationships including properties of matter, chemical bonding and structure, nomenclature, chemical equations, stoichiometry, gas laws, thermochemistry, states of matter, and reactions in aqueous solutions.

3 hours lecture, 3 hours laboratory.

CHM 152 ‡ (SUN# CHM 1152) General Chemistry II (4)

Prerequisite(s): CHM 151.

A continuation of General Chemistry I and the general principles of inorganic chemistry, with focus on quantitative relationships including acids and bases, equilibrium, kinetics, electrochemistry, and nuclear chemistry.

3 hours lecture, 3 hours laboratory.

CHM 192 Special Topics and Applications in Chemistry (0.25-4)

Prerequisite(s): None.

Recommended Preparation: Permission of the instructor is strongly recommended.

A rotating forum/seminar/course or supplement to an existing chemistry course emphasizing chemistry related topics. The title and credit hours for this course will vary each term depending on the topic.

CHM 235 ‡ (SUN# CHM 2235) General Organic Chemistry I (4)

Prerequisite(s): CHM 152.

An introduction to the naming, structure, and properties of organic compounds with an emphasis on alkanes, stereochemistry, alkyl halides, alkenes, and spectroscopy. Focus is on the mechanisms that reveal the relationships between these different classes of organic compounds. Deals with general techniques unique to organic chemistry, separations, chromatography, boiling and melting points, and other physical properties.

3 hours lecture, 3.5 hours laboratory.

CHM 236 ‡ (SUN# CHM 2236) General Organic Chemistry II (4)

Prerequisite(s): CHM 235.

A continued study of the naming, structure, and properties of organic compounds with an emphasis on alcohols, ethers, epoxides, aromatics, ketones, aldehydes, amines, carboxylic acids and their derivatives, enols, and enolate ions. Focus is on mechanisms and syntheses that reveal the relationships between these different classes of organic compounds.

3 hours lecture, 3.5 hours laboratory.

CHM 299 Individual Studies (1-4)

Prerequisite(s): Approval of appropriate instructional manager and instructor.

Completion of a research problem or an outlined course of study under the direction of a faculty member, with contract for the individual study agreed upon by the student, the instructor, and the appropriate instructional manager prior to the initiation of the study.

CIS - Computer Information Systems

CIS 116 * Computer Essentials (3)

Prerequisite(s): None.

A hands-on introduction to the operating system and applications of the personal computer and to the Internet. Emphasis is placed on Word, Excel, and PowerPoint, and on the integration of these applications.

3 hours lecture.

CIS 120 * (SUN# CIS 1120) Introduction to Information Systems (3)

Prerequisite(s): None.

An introduction to digital basics, hardware, software, operating systems, local area networks, wide area networks, Internet, Web, email, digital media, basic programming, and the computer industry. Also includes an in-depth application of the business intelligence perspective, which uses database and spreadsheet software packages to achieve efficient and effective problem solving.

3 hours lecture.

CIS 128 * Linux Operating System (4)

Prerequisite(s): CIS 120.

An introduction to the Linux operating system which covers its history, internal organization, and directory and file system. Additional topics include installation, vi editor, user commands, and utilities. For those interested in Linux as well as those interested in pursuing the CompTIA Linux+ certification.

3 hours lecture, 3 hours laboratory.

CIS 128U * Unix Operating System (4)

Prerequisite(s): None.

An introductory course in the Unix operating system. Topics include the history, internal organization, directory and file sys-

tem, vi editor, user commands and utilities, the shell, and an introduction to shell programming.

3 hours lecture, 3 hours laboratory.

CIS 129 * Introduction to Programming Logic (1)

Prerequisite(s): None.

An introduction to software and programming concepts for students interested in visual or scripting languages. Topics include notations, data, operators, sequence, selection, repetition, and subprograms.

1 hour lecture.

CIS 130 * Programming Logic (3)

Prerequisite(s): None.

A study of software and programming concepts. Topics include programming methodologies, structures, and functions; notations and expressions; data, data types, and data files; file processing; and the software life cycle.

3 hours lecture.

CIS 140 * Introduction to Operating Systems (3)

Prerequisite(s): None.

Recommended Preparation: CIS 116.

Provides students with a knowledge of operating systems and prepares them to take the CompTIA A+ Essentials certification examination. Topics include system components, storage, networking, security, and system management.

3 hours lecture, 1 hour laboratory.

CIS 150 * Essentials of Networking (3)

Prerequisite(s): None.

Provides students with knowledge of networking technologies and prepares them to take the CompTIA Network+ certification examination. Topics include networking basics, Ethernet, implementation, wireless networking, security, and network management.

3 hours lecture.

CIS 160 * Introduction to Information Security (4)

Prerequisite(s): None.

Provides students with a knowledge of security concepts and with the skills required to react to security incidents, and prepares them to take the CompTIA Security+ certification examination. Topics include network security; compliance and operational security; threats and vulnerabilities; application, data, and host security; access control and identity management; and cryptography.

3 hours lecture, 2 hours laboratory.

CIS 161 * Network Security (4)

Prerequisite(s): CIS 140, CIS 150, and CIS 160; or permission of instructor.

A detailed study of network security principles and their implementation. Topics include the fundamentals of network security: implementation of firewalls, infrastructure security, and Windows operating system security and its impact on network security. Also covers the various utilities used to manage network security and troubleshoot problems.

3 hours lecture, 3 hours laboratory.

CIS 164 * Introduction to Scripting Using Python (4)

Prerequisite(s): CIS 120.

An introduction to scripting using Python. Topics include basic data types, control structures, decision constructs, regular expressions, input and output techniques, and textual analysis.

3 hours lecture, 2 hours laboratory.

CIS 179 * Applied Technical Writing (3)

Prerequisite(s): ENG 100 or placement in ENG 101, RDG 122 or exemption, and CIS 116 or CIS 120.

An application of technical writing skills used in organizational reports and communications. Focus is on the processes for reporting technical information, with emphasis on writing mechanics and syntax, forms and formatting, and technical style.

3 hours lecture.

CIS 181 * Computer Applications (3)

Prerequisite(s): CIS 116 or CIS 120.

An introduction to the uses of spreadsheets and database software. Spreadsheet emphasis is on the use of formulas and functions, the development of charts and graphs, the creation and manipulation of lists, the creation of pivot tables, and the role of the Internet in spreadsheets. Database software emphasis is on data entry, on the creation of queries, forms, and reports, and on the design and maintenance of databases.

3 hours lecture.

CIS 183 * Basic Game Design and Creation (3)

Prerequisite(s): None.

An introduction to game design and development. Topics include creating objects, events and multiple levels of game interaction. Students will learn the fundamentals of object-oriented game design while using a game development package that requires no writing of programming code.

3 hours lecture.

CIS 185 * Internet Essentials (3)

Prerequisite(s): CIS 116 or concurrent enrollment.

A survey of the Internet that covers browser capabilities and management, real-time and mass communications, and social networks. Also covers email management, ecommerce, online security, and other Internet services; and teaches the basics of HTML.

3 hours lecture.

CIS 204 * C Programming (4)

Prerequisite(s): CIS 130 or score of 70 or higher on the waiver exam.

A beginning course in the C programming language. Topics include syntax and semantics, data types, operators, looping structures, decision structures, functions, arrays, pointers and file handling.

3 hours lecture, 3 hours laboratory.

CIS 206 Assembler with Architecture (4)

Prerequisite(s): CIS 221 and either CIS 130 or a score of 70 or higher on the waiver exam.

A detailed study of the 8088/8086 Assembly Programming language that takes individual instructions written in symbolic form

and converts them into machine language. Includes an introduction to the organization and structure of the major hardware components of a microcomputer to include primary memory, the control unit and the arithmetic logic unit.

3 hours lecture, 3 hours laboratory.

CIS 208 JAVA Programming (4)

Prerequisite(s): CIS 130 or a score of 70 or higher on the waiver exam.

A beginning course in the JAVA programming language. Topics will include object-oriented programming concepts, terminology, notation, and the syntax and semantics of the JAVA programming language.

3 hours lecture, 3 hours laboratory.

CIS 217 * Introduction to Visual C#.NET Programming (4)

Prerequisite(s): CIS 129 or concurrent enrollment, or CIS 130.

A study of the fundamentals of computer programming using Visual C#.NET. Emphasis is on the Microsoft Integrated Development Environment (IDE) and the .NET environment, as well as on proper programming strategies with Visual C#.NET.

3 hours lecture, 3 hours laboratory.

CIS 218 * Visual Basic Programming (4)

Prerequisite(s): CIS 129 or concurrent enrollment, or CIS 130.

A study of the fundamentals of computer programming within the Windows environment. Emphasis is on the use of Visual Basic objects, events, and projects to create Windows programs.

3 hours lecture, 3 hours laboratory.

CIS 220B Data Structures-Assembler (4)

Prerequisite(s): CIS 206.

A course in data structures and advanced programming concepts. Topics include the design, implementation, and application of stacks, queues, lists, and trees; and sequential and direct access to files. Students implement the data structures in Assembler.

3 hours lecture, 3 hours laboratory.

CIS 220C Data Structures-C (4)

Prerequisite(s): CIS 204.

A course in data structures and advanced programming concepts. Topics include the design, implementation, and application of stacks, queues, lists, trees; and sequential and direct access to files. Students will implement the data structures in C.

3 hours lecture, 3 hours laboratory.

CIS 220J (SUN# CSC 2205) Data Structures-JAVA (4)

Prerequisite(s): CIS 208.

A course in data structures and advanced programming concepts. Topics include the design, implementation, and application of stacks, queues, lists, trees; and sequential and direct access to files. Students implement the data structures in JAVA.

3 hours lecture, 3 hours laboratory.

CIS 221 * Digital Logic (3)

Prerequisite(s): CIS 116 or CIS 120, and CIS 129 or CIS 130; or permission of instructor.

A study of number systems, conversion methods, binary and complement arithmetic, Boolean and switching algebra, circuit minimizations, read-only memory, programmable logic arrays, flip-flops, synchronous sequential circuits, and register transfer design.

2 hours lecture, 2 hours laboratory.

CIS 224 * Introduction to Game Programming (4)

Prerequisite(s): CIS 217 and CIS 283.

An introduction to the role of the programmer in the development of a game. Topics include what a game looks like from a programmer's perspective and how programmers translate the game design document into a working program.

3 hours lecture, 3 hours laboratory.

CIS 229 * Linux System Administration (4)

Prerequisite(s): CIS 128.

An introductory course in Linux system administration. Covers starting, stopping, backing up, tuning, and troubleshooting the system; administering users and groups; and scripting. Also deals with file systems, terminals, printers, disks, and electronic mail.

3 hours lecture, 3 hours laboratory.

CIS 232 * Digital Communications and Network Hardware (4)

Prerequisite(s): CNT 140 or CIS 150, and CIS 128 or CIS 236.

Course topics include binary and hex number systems, Boolean algebra, circuit optimization, switches, routers, firewall configuration and installations. Students will implement network management.

3 hours lecture, 3 hours laboratory.

CIS 236 * Microsoft Workstation Operating Systems (4)

Prerequisite(s): CIS 140, CIS 160, and either CNT 140 or CIS 150.

Microsoft is the leading supplier of desktop operating systems for home and business use. This course will use the most current and widely accepted version of Microsoft's business desktop operating system. Students will learn proper installation of the operating system, the features of the system, maximum utilization of the user interface, and efficient file handling. They will also learn to create, edit and delete user profiles, create a functional user environment, create and utilize shared network resources, and utilize and administer the workstation as a server in a hands-on environment. They will also utilize troubleshooting skills to overcome simple and complex problems in the Microsoft operating system environments.

3 hours lecture, 3 hours laboratory.

CIS 242 World Wide Web Programming (3)

Prerequisite(s): CIS 287.

Provides learning opportunities in advanced Web programming. Emphasis is placed on server-side scripting, including using databases on Web sites. Also covered are foundational Web design and e-commerce issues. This is a capstone course for the Web Developer Certificate.

3 hours lecture, 1 hour laboratory.

CIS 244 World Wide Web Graphics (3)

Prerequisite(s): CIS 185.

Graphics are the heart of the World Wide Web. This course addresses creation and modification of graphics. Properties of web

graphic formats and conversions are also addressed. Strategies for incorporating graphics into websites for effective presentation are covered.

3 hours lecture.

CIS 245 Microsoft Server and Active Directory (4)

Prerequisite(s): CIS 236.

Fundamentals of Microsoft Server and Active Directory. Topics include server hardware, installation, and configuration; Active Directory replication; Microsoft Group Policy; and system security. Explores the role of the network administrator and offers hands-on application of various approaches to user and server management.

3 hours lecture, 3 hours laboratory.

CIS 248 * Perl Scripting (3)

Prerequisite(s): CIS 129 or CIS 130 or pass the CIS 130 placement exam.

Provides Perl script creation and maintenance. Emphasis is on application of Perl scripts to the World Wide Web and web applications. Perl scripts are run on Unix and Windows NT systems.

3 hours lecture.

CIS 250 * Database Management (4)

Prerequisite(s): CIS 181.

A study of the management of data in business organizations. Students are presented with the opportunity to combine theory with a hands-on emphasis on techniques for developing and using databases.

4 hours lecture.

CIS 259 * Advanced Linux Systems Administration (4)

Prerequisite(s): CIS 229 and CIS 248.

An advanced course in Linux System Administration. Topics include implementing Dynamic Host Control Protocol (DHCP) and Domain Name Service (DNS); managing file systems; securing networks; maintaining and troubleshooting servers.

3 hours lecture, 3 hours laboratory.

CIS 260 Service and Maintenance of Personal Computers (4)

Prerequisite(s): CIS 140.

Designed to provide intermediate and advanced hands-on experience and information on computer servicing, enabling the student to diagnose and repair problems. Intermediate and complicated configuration and hardware problems will be covered. Some of the topics covered will be PC setup and configuration, floppy and hard disk drives, replacing and upgrading RAM chips, board level diagnosis and repair. This course is taught in a lab environment.

3 hours lecture, 3 hours laboratory.

CIS 262 Network Support and Troubleshooting (4)

Prerequisite(s): CIS 229, CIS 245, and CIS 260.

A capstone course in network support and troubleshooting. Topics include installation of network operating software, local area network (LAN) diagnostic utilities, installation and configuration of client software and of adaptor cards, physical and data link layer troubleshooting of networks, bridging and routing, and configuration problems.

3 hours lecture, 3 hours laboratory.

CIS 263 * Network Defense (4)

Prerequisite(s): CIS 128, CIS 161, CIS 236, and CIS 264.

An advanced course in cybersecurity principles and techniques. Topics include the tools and tactics used in assessing the security posture of computer networks; the steps involved in a penetration testing methodology—network footprinting and discovery, service enumeration, attack vector evaluation, and vulnerability assessments; and the legal and ethical issues raised by penetration testing.

3 hours lecture, 3 hours laboratory.

CIS 264 Ruby Programming (4)

Prerequisite(s): CIS 164.

A study of the fundamentals of the Ruby programming language. Emphasis is on the proper development of Ruby programs, on the language's syntax and semantics, and on appropriate debugging techniques for the language.

3 hours lecture, 2 hours laboratory.

CIS 267 Mobile Security (3)

Prerequisite(s): CIS 160.

Recommended Preparation: CIS 120.

A survey of mobile security as it relates to mobile computing devices such as smart phones and tablets. Focus is on the technologies, policies, and procedures used to secure these devices and on the security of their wireless transmissions.

3 hours lecture.

CIS 268 * Technical Presentations (3)

Prerequisite(s): CIS 116 or CIS 120.

Recommended Preparation: Strong background in at least one application software (i.e., word processing etc.).

A study of the principles of effective communication skills integrating the latest electronic technology in order to prepare and deliver state-of-the-art business and technical speeches. Business speech course or equivalent is suggested prior to enrolling.

3 hours lecture.

CIS 270 * Systems Analysis (4)

Prerequisite(s): CIS 120.

A study of the structure methods used to analyze both existing and proposed information systems and projects; incorporating various software, techniques and methodologies.

3 hours lecture, 3 hours laboratory.

CIS 275 Computer Forensics (4)

Prerequisite(s): CIS 236.

Recommended Preparation: CIS 120.

Fundamentals of computer forensics. Topics include forensic evidence preservation, computer forensic tools, evidence analysis, chain of custody, and data retrieval from computer hardware and software applications using both Windows and Linux operating systems. Explores the role of the computer forensics examiner and offers hands-on application of various computer forensic tools, evidence preservation techniques, and documentation.

3 hours lecture, 3 hours laboratory.

CIS 281 * Advanced Computer Applications (3)

Prerequisite(s): CIS 181.

Advanced applications of spreadsheet and database software on the personal computer. Emphasis on the spreadsheet will be placed on the use of advanced formulas and functions, analyzing data, and using the World Wide Web for data reporting, importing data into spreadsheets, creating spreadsheet applications, and the use of macros. Database emphasis will be on the design of a relational database, enhanced querying techniques, creating forms using multiple tables, developing advanced report forms, and the use of macros.

3 hours lecture.

CIS 282 * Introduction to Game Level Design (3)

Prerequisite(s): CIS 183.

An introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balance, play testing, and storytelling.

3 hours lecture.

CIS 283 * Advanced Game Design and Creation (3)

Prerequisite(s): CIS 183.

This course provides students with an advanced look at game design and development. Topics include multi-player games, artificial intelligence, and advanced story line creation. Students will learn the fundamentals of the game development package design language.

3 hours lecture.

CIS 284 * Introduction to Simulations Programming (4)

Prerequisite(s): CIS 217 and CIS 283.

This course introduces students to the concepts used to apply simulations programming to the implementation of games. Topics include virtual worlds, graphics concepts, and application of game simulation techniques.

3 hours lecture, 3 hours laboratory.

CIS 287 World Wide Web Development (3)

Prerequisite(s): CIS 185 and either CIS 129 or CIS 130.

Provides learning opportunities in web authoring. Emphasis is placed on cohesive web design and web authoring environments. Use and management of text, graphics, video, audio hyperlinks, and other Web elements are also covered. Also covered is the use of Cascading Style Sheets and JavaScript to create dynamic, interactive Web pages.

3 hours lecture.

CIS 289 * Artificial Intelligence Theory and Programming (4)

Prerequisite(s): CIS 224.

A study of many of the artificial intelligence challenge—including path finding, movement, agents, and strategy—involved in the creation of games. In addition to designing original games, students analyze current games to determine how to overcome these challenges.

3 hours lecture, 3 hours laboratory.

CIS 290 * Game Development Using Flash (4)

Prerequisite(s): CIS 283 and DMA 111.

The application of Flash animation programming in the implementation of interactive games. Topics include game design and implementation, use of appropriate style, and debugging techniques for the creation of Web-based interactive games.

3 hours lecture, 3 hours laboratory.

CIS 291 * Practical Applications in Cybersecurity (4)

Prerequisite(s): CIS 161, CIS 236, and CIS 267.

Examines the combination of technical, management, and presentation skills needed by cybersecurity professionals. Integrates the planning, implementation, maintenance, and defense of organizational networks, using a variety of tools and techniques. Provides extensive hands-on exercises to reinforce key course concepts.

3 hours lecture, 3 hours laboratory.

CIS 293 * Practical Applications in Game Design (4)

Prerequisite(s): CIS 282 and CIS 284.

The application of creative, project-management, and technical aspects in the game design process. Working in groups, students develop a game from initial concept to finished product.

3 hours lecture, 3 hours laboratory.

CIS 294 Field Experience in Computer Information Systems (1-6)

Prerequisite(s): A declared major in a computer information systems discipline and permission of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing and faculty recommendation.

A supervised cooperative education field experience involving the combined efforts of educators and employers. Students accomplish various academic and career-related objectives in computer information systems and related fields.

CNT - Cisco Network Technology

CNT 140 ‡ Introduction to Cisco Networks (3)

Prerequisite(s): None.

An introduction to the architecture, structure, functions, components, and models of the Internet and other computer networks. Topics include the principles and structure of Internet Protocol (IP) addressing and the fundamentals of Ethernet concepts, media, and operations. Students build simple local area networks (LANs), perform basic configurations for routers and switches, and implement IP addressing schemes. This is the first in a series of four courses in the Cisco Networking Technology (CNT) curriculum.

2 hours lecture, 2 hours laboratory.

CNT 150 ‡ Cisco Routing and Switching Essentials (3)

Prerequisite(s): CNT 140.

A study of the architecture, components, and operations of routers and switches in a small network. Students configure routers and switches for basic and advanced functionality, and troubleshoot and resolve common problems—in both IPv4 and IPv6 networks—with Routing Information Protocol (RIPv1 and RIPv2), single-area and multi-area Open Shortest Path First (OSPF), virtual local area networks (VLANs), and inter-VLAN routing. This

is the second in a series of four courses in the Cisco Networking Technology (CNT) curriculum.

2 hours lecture, 2 hours laboratory.

CNT 240 ‡ Scaling Cisco Networks (3)

Prerequisite(s): CNT 150.

An investigation into the architecture, components, and operations of routers and switches in a large, complex network. Students configure routers and switches for advanced functionality, and troubleshoot and resolve common problems—in both IPv4 and IPv6 networks—with Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Spanning Tree Protocol (STP), and VLAN Trunk Protocol (VTP). Students develop the knowledge and skills needed to implement Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS) operations in a network. This is the third in a series of four courses in the Cisco Networking Technology (CNT) curriculum.

2 hours lecture, 2 hours laboratory.

CNT 250 ‡ Connecting Cisco Networks (3)

Prerequisite(s): CNT 240.

An examination of the Wide Area Network (WAN) technologies and network services required in converged applications in a complex network. Covers the criteria for selecting network devices and WAN technologies to meet network requirements. Students troubleshoot and resolve common problems with network devices and data link protocols; and they implement Network Address Translation (NAT), IP security (IPSec), and virtual private network (VPN) operations in a complex network. This is the last in a series of four courses in the Cisco Networking Technology (CNT) curriculum.

2 hours lecture, 2 hours laboratory.

COM - Communications

COM 102 (SUN# COM 1100) Essentials of Communication (3)

Prerequisite(s): ENG 100 or placement in ENG 101.

A study of the communication process as it relates to a variety of communication situations: one-on-one dialogues, small group discussions, and large group presentations. The course covers basics in communication, including listening skills, verbal and nonverbal language analysis, communication styles, gender and cultural comparisons, and bridging strategies.

3 hours lecture.

COM 110 * Public Speaking (3)

Prerequisite(s): COM 102 or permission of instructor.

A study of public speaking that reviews the fundamentals of speech as they relate to communicating with an audience, with special emphasis on the theories and techniques of persuasion. Students give speeches and they critique those of others from the perspective of topic selection, organization, and delivery.

3 hours lecture.

COM 204 * Elements of Intercultural Communication (3)

Prerequisite(s): ENG 101 or permission of instructor.

An introduction to communication across cultures. Emphasis is on the theory underlying intercultural communication and on the practical application of communication strategies and skills that lead to improved communication among people of diverse cultural backgrounds in a multicultural society and world. Identical to AJS 204.

3 hours lecture.

COM 270 (SUN# COM 1110) Interpersonal Communications (3)

Prerequisite(s): ENG 101.

A course to develop self-awareness and insight into interpersonal relationships with emphasis upon the development of communication skills and techniques for one-on-one professional communication.

3 hours lecture.

COM 271 (SUN# COM 2271) Communications in Small Groups (3)

Prerequisite(s): COM 270 or permission of instructor.

A continuation of COM 270 refining skills and techniques learned and adding analysis and presentation with emphasis on small-group communication processes.

3 hours lecture.

COR - Corrections

COR 109 Prisoners' Rights (1)

Prerequisite(s): None.

A practical overview of prisoners' procedural due process and substantive constitutional rights. Credit awarded for successful completion of the Arizona Correctional Officer Training Academy.

1 hour lecture.

COR 113 Crisis Intervention (1)

Prerequisite(s): None.

A practical study of conflict-resolution techniques, including assertive communication, force, safety procedures, and referrals. Emphasis on appropriate use by police and correctional officers. Credit awarded for successful completion of the Arizona Correctional Officer Training Academy.

1 hour lecture.

COR 118 Communications in Criminal Justice (1)

Prerequisite(s): None.

A practical study of effective intradepartmental and interdepartmental communication within the criminal justice profession, including barriers to effective communication, communication with the community, and communication within the courtroom. Credit awarded for successful completion of the Arizona Correctional Officer Training Academy.

1 hour lecture.

CPD - Counseling and Personal Development

CPD 101 College Seminar (1)

Prerequisite(s): None.

A course designed to promote academic success by helping students enhance their motivation and learning strategies. Review of research and theory regarding motivation and learning lead to

self-management studies. Students, traditional and nontraditional, will also have an opportunity to become familiar with a campus-wide support system.

1 hour lecture.

CPD 117 Personal Development (2)

Prerequisite(s): None.

Students will learn skills that will enable them to more successfully participate in our society. Skills include: communication, budgeting, time management, and problem solving/decision making.

2 hours lecture.

CPD 150 * Academic Excellence Seminar (3)

Prerequisite(s): None.

An introduction to higher education learning, with focus on the development of critical thinking, research, time management, communication, and stress management skills. Incorporates academic and career goal-setting strategies, and develops financial literacy.

3 hours lecture.

CPD 150A Academic Excellence Seminar, Part I (1)

Prerequisite(s): None.

An introduction to higher education learning, with focus on the development of critical thinking, reading, and time management skills. Incorporates academic and career goal-setting strategies.

1 hour lecture.

CUL - Culinary Arts

CUL 101 ‡ Cake Decorating (3)

Prerequisite(s): None.

Covers all aspects of cake decorating including leveling and torting, and introduces butter cream and fondant cakes, borders, flowers, color flow, and gum paste and fondant work.

2 hours lecture, 2 hours laboratory.

CUL 105 Nutrition in Food Service (3)

Prerequisite(s): None.

Principles of culinary nutrition. Includes scientific aspects, lifestyle impact on food consumption and production, and nutrition applications in food service.

3 hours lecture.

CUL 107 Restaurant Sanitation (3)

Prerequisite(s): None.

An examination of techniques for controlling sanitation in food service operations. Includes a kitchen orientation and basic knife handling and safety. Prepares students to take the ServSafe industry certification. (Students wishing to re-certify may pay a fee for the certification test without having to retake the course.)

2 hours lecture, 2 hours laboratory.

CUL 204 Food Service Purchasing and Control (3)

Prerequisite(s): BUS 104 or placement in MAT 123.

Recommended Preparation: CUL 215.

A study of the principles in selecting sources, quality, and types of food, and in determining purchase quantities. Also deals with receiving operations and volume assurance including planning, control systems, cost analysis, sales income, and labor costs.

3 hours lecture.

CUL 215 ‡ Cooking Essentials (3)

Prerequisite(s): CUL 107, concurrent enrollment, or permission of instructor.

An introduction to food costs, recipes, pre-preparation, and basic cooking principles. Involves the preparation of stocks and sauces, vegetables, starches, breakfast products, meats, poultry, fish, and shellfish.

2 hours lecture, 2 hours laboratory.

CUL 217 ‡ Saucier (3)

Prerequisite(s): CUL 107, concurrent enrollment, or permission of instructor.

Focus is on the cooking principles and techniques used in the preparation of stocks, soups, classic and contemporary sauces and accompaniments, and on the pairing of sauces with a variety of foods.

2 hours lecture, 2 hours laboratory.

CUL 220 ‡ Breads and Baking Theory (3)

Prerequisite(s): CUL 107, concurrent enrollment, or permission of instructor.

An introduction to the essentials of baking theory, gluten development, and baking mathematics, with a focus on the use of proper kitchen equipment. Includes instruction in the preparation of yeast doughs and the baking of quick breads, lean and rich dough breads, and artisan breads.

2 hours lecture, 2 hours laboratory.

CUL 221 ‡ Pastry Basics (3)

Prerequisite(s): CUL 220.

A continuation of CUL 220 that includes advanced baking principles as they relate to pastry cream, meringues, icings, pie doughs, eclair paste, pie production, cakes, cookies and their characteristics, custards and mousses; frozen desserts; fruit desserts; souffles, doughnuts, and crepes. Additional topics include dessert presentation and baking for special diets.

2 hours lecture, 3 hours laboratory.

CUL 222 ‡ Advanced Confections and Pastries I (3)

Prerequisite(s): CUL 221.

Continued instruction in baking skills focusing on sophisticated pastry techniques including advanced laminated dough, specialty gateau and torten (gourmet cakes), and complex sauces and creams.

2 hours lecture, 3 hours laboratory.

CUL 223 ‡ Advanced Confections and Pastries II (3)

Prerequisite(s): CUL 222.

Advanced confectionary-showpiece work designed to develop chocolate decorative techniques such as tempering, molding, rolling, curling, shaving, and others, as well as sophisticated methods used in working with pulled, blown, poured, spun, and cast sugar.

2 hours lecture, 3 hours laboratory.

CUL 224 Field Experience in Culinary Arts (1-6)

Prerequisite(s): A declared major in culinary arts, permission and approval of the cooperative education program coordinator, and CUL 107.

Recommended Preparation: Sophomore standing.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career objectives in culinary arts and related fields.

CUL 225 ‡ Garde Manger I (3)

Prerequisite(s): CUL 215.

Covers the creation and storage of salads, sandwiches, and appetizers. Includes purchasing practices, food platter layout and presentation, and cooking methods. Also includes salads and dressings, poultry, seafood, meats, show pieces, and canapes and hors d'oeuvres.

2 hours lecture, 2 hours laboratory.

CUL 226 ‡ Garde Manger II (3)

Prerequisite(s): CUL 225.

This course is a continuation of CUL 225. It includes review of the garde manger department, aspic and chaud froid, garde manger department production, purchasing and procurement of specialty products, various force meats, dinner and theme buffets, ice carvings, plate presentations, cheeses, cured and smoked products, and charcuterie.

2 hours lecture, 3 hours laboratory.

CUL 242 Dining Service Management (3)

Prerequisite(s): None.

A study of the concepts of dining room operations and the duties of a table server. Includes creative selling, basic etiquette and styles of service, electronic service, teamwork, generic and varietal wines, wine and food pairings, and bar service. Does not include mixology or wine tasting.

3 hours lecture.

CUL 275 ‡ International Cuisine (3)

Prerequisite(s): CUL 226 or permission of instructor.

An introduction to regional ingredients in traditional international cuisine, with focus on planning, preparation, and presentation of foods from around the world. Emphasis is on trends, flavor profiles, plate presentations, and cooking techniques unique to various world regions.

2 hours lecture, 3 hours laboratory.

CUL 280 ‡ Advanced Techniques in Gourmet Food Preparation I (3)

Prerequisite(s): CUL 217 and CUL 275, or permission of instructor.

The first of two capstone courses in the culinary arts program with emphasis on advanced techniques for the preparation of gourmet food including proper flavorings, spirits, garnishes, and flambé in haute cuisine.

2 hours lecture, 3 hours laboratory.

CUL 281 ‡ Advanced Techniques in Gourmet Food Preparation II (3)

Prerequisite(s): CUL 280.

The second of two capstone courses in the culinary arts program with emphasis on advanced techniques for the preparation of gourmet food including proper flavorings, spirits, garnishes, and flambe in haute cuisine.

2 hours lecture, 3 hours laboratory.

DFT - DRAFTING

DFT 112 Technical Graphics I (3)

Prerequisite(s): None.

Introductory course in technical drafting including orthographic and axonometric projection, geometric construction, sketching, lettering, dimensioning, and section conventions, with emphasis on industrial drafting standards.

2 hours lecture, 4 hours laboratory.

DFT 113 Technical Graphics II (3)

Prerequisite(s): DFT 112.

Study of auxiliary and oblique surfaces, intersections, detailing standards, fasteners, materials, and dimensioning with emphasis on elements of descriptive geometry.

2 hours lecture, 4 hours laboratory.

DFT 150 Fundamentals of AutoCAD (3)

Prerequisite(s): None.

Recommended Preparation: Computer literacy with a working knowledge of Windows and its functions, and a basic knowledge of drafting.

An introduction to automated computer-aided design using Autodesk's AutoCAD software. Focus is on developing the knowledge and skills required to create, edit, and manipulate simple drawings using AutoCAD.

2 hours lecture, 3 hours laboratory.

DFT 201 Topics in Drafting (3)

Prerequisite(s): DFT 150.

An application of automated computer-aided design using Autodesk's AutoCAD software. Topics include architectural, civil, mechanical, and electrical drafting. Covers how different drafting disciplines are used in current fields of technology.

2 hours lecture, 3 hours laboratory.

DFT 210 Spatial Relationships (3)

Prerequisite(s): DFT 112 or concurrent enrollment.

Solution of points, lines and planes, single-curved, double-curved and warped surfaces. Emphasis on mechanical, civil and mining engineering applications.

2 hours lecture, 4 hours laboratory.

DFT 241 Engineering Design (4)

Prerequisite(s): DFT 150 and DFT 210.

A study of standardized tooling components including jigs, fixtures, and gauges with emphasis on design of the various tooling elements. Included is a study of automation for manufacturing applications.

3 hours lecture, 5 hours laboratory.

DFT 250 Advanced AutoCAD (3)

Prerequisite(s): DFT 150.

An advanced application of automated computer-aided design using Autodesk's AutoCAD software. Covers complex two-dimensional drawings, and three-dimensional drawings and modelings.

2 hours lecture, 3 hours laboratory.

DFT 270 AutoCAD 3D (3)

Prerequisite(s): CIS 116, DFT 150, and DFT 250.

An introduction to the concepts and methodologies of 3D modeling and rendering using Autodesk's AutoCAD 3D software. Covers solids, surfaces, space, visualizations, and drawings.

2 hours lecture, 3 hours laboratory.

DMA - Digital Media Arts

DMA 110 *‡ Digital Imaging I (3)

Prerequisite(s): CIS 116, CIS 120, or permission of instructor.

An introduction to the creation, manipulation, and enhancement of digital images. Using appropriate software, students apply fundamental composition and image-preparation techniques to create basic digital images and to resolve simple image problems.

3 hours lecture, 1 hour laboratory.

DMA 111 *‡ Computer Animation I (3)

Prerequisite(s): None.

A study of the beginning and intermediate features of animation software developed through the practical application of basic computer animation skills.

3 hours lecture, 1 hour laboratory.

DMA 140 *‡ Digital Photography for Personal Growth (2)

Prerequisite(s): None.

An introduction to the use and function of the digital camera and the hardware, software, and techniques necessary to electronically store, transfer, manipulate, and print digital photographs. Students will learn basic design concepts as they relate to digital photography as an art form. This includes skill development in basic elements of design: line, shape, value, texture, and color. Students will acquire skills in using a digital camera as a photographic tool for career, work or personal pleasure and self-expression.

1 hour lecture, 3 hours laboratory.

DMA 210 *‡ Digital Imaging II (3)

Prerequisite(s): DMA 110.

Recommended Preparation: ART 103 or ART 106.

An advanced study of the creation, manipulation, and enhancement of digital images. Using appropriate software, students apply advanced composition and image-preparation techniques to create complex digital images and to resolve difficult image problems.

3 hours lecture, 1 hour laboratory.

DMA 211 *‡ Computer Animation II (3)

Prerequisite(s): DMA 111.

Recommended Preparation: ART 103 or ART 106.

A study of the advanced and multifaceted features of animation software as they are developed through the practical application of advanced computer animation skills.

3 hours lecture, 1 hour laboratory.

DMA 214 ‡ Creating Multimedia Presentations (4)

Prerequisite(s): DMA 110, DMA 111, DMA 210, and DMA 211.

This course is the capstone course in the 2D animation and imagery series. This course will produce multimedia presentations encompassing techniques learned in all the prerequisite courses. This course is taught in a hands-on environment.

4 hours lecture.

DMA 260 ‡ Graphic Design I (3)

Prerequisite(s): ART 103, ART 106, or permission of instructor.

A studio course introducing the process and purpose of graphic design. Studio, research, and problem-solving methodologies; review of basic design principles; and design applications to include identity and information, editorial, promotional, and advertising. This class serves as the foundation for intermediate and advanced graphic design course work and will focus on the use of Macintosh computers and Adobe software including Photoshop and Illustrator.

2 hours lecture, 4 hours laboratory.

DMA 261 ‡ Graphic Design II (3)

Prerequisite(s): DMA 260 and either ART 103, ART 106, or permission of instructor.

An advanced studio course dealing with the process and purpose of graphic design. Studio, research, and problem-solving methodologies; review of basic design principles; and design applications to include identity and information, editorial, promotional, and advertising. This class serves the intermediate and advanced graphic designer and will focus on the use of Macintosh computers and Adobe software including Photoshop and Illustrator.

2 hours lecture, 4 hours laboratory.

DMA 262 ‡ Digital Video Production (3)

Prerequisite(s): None.

Recommended Preparation: Art majors must have ART 103 and DMA 266, or permission of instructor. Additional preparation may include ART 285.

This course will introduce the student to the fundamental aspects of video production. It will include a history of digital video, an introduction to the digital video camera, camera lenses and associated computer equipment. Students will also work as members of a production team and receive instruction on composition, portfolio preparation, and possible career options.

2 hours lecture, 4 hours laboratory.

DMA 263 ‡ Digital Video Production II (3)

Prerequisite(s): DMA 262.

Recommended Preparation: ART 103.

An advanced studio course dealing with the process and production of the digital video. This course will include: advanced digital topics in camera usage, digital formats and scripting, production plan, lighting equipment in/on various locations, post production, editing approaches, developing a visual storyline, and building a portfolio.

2 hours lecture, 4 hours laboratory.

DMA 266 ‡ Digital Photography (3)

Prerequisite(s): None.

Recommended Preparation: Art majors must have ART 103 or

permission of instructor. Additional preparation may include ART 285.

An introduction to digital photography which will emphasize technical and aesthetic issues associated with this medium. This course is designed to acquaint students with the history of still photography, aspects of the digital medium, camera and computer requirements, lighting, lenses, elements of composition, portfolio, and career options in this artistic field.

2 hours lecture, 4 hours laboratory.

DMA 267 ‡ Digital Photography II (3)

Prerequisite(s): DMA 266.

Recommended Preparation: ART 103 and DMA 260.

This course is a continuation of DMA 266 Digital Photography I which will emphasize intermediate technical and aesthetic issues associated with this medium. This course will address intermediate, aspects of digital photography including: digital output, lighting, computer/computer software and digital camera usage, composition, critical analysis, and portfolio development.

2 hours lecture, 4 hours laboratory.

ECE - Early Childhood Education

ECE 150 * Introduction to Early Childhood Care and Education (3)

Prerequisite(s): None.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

An overview of early childhood, the early childhood teaching profession, and current issues in early childhood education with emphasis on the role, qualifications, and responsibilities in the classroom. Explanation of topics relevant to the classroom teacher, i.e., methods, ethics and current issues and trends.

3 hours lecture.

ECE 152 Observation, Behavior and Guidance (3)

Prerequisite(s): None.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

An introductory course in communication skills, concepts, and techniques for observing and recording child characteristics and behaviors in the early childhood setting. Areas of focus are objective observation techniques, guidance, behavior modification techniques, listening skills, and classroom management. Meaningful two-way communication is emphasized.

3 hours lecture.

ECE 155 * Children's Language Development (3)

Prerequisite(s): Placement in or completion of ENG 100.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

An overview of children's language growth from birth to age five: the development of sounds, structures, and meaning. Implications of family and social input, including mixed or multiple languages. Consideration of special cases (hearing or vision impaired, for example) and of the relationship of spoken to written language. Application to childcare or preschool setting.

3 hours lecture.

ECE 156 Children's Literature and Children's Literacy (3)

Prerequisite(s): Placement in or completion of ENG 100.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

An overview of the process by which children become literate (able to read and write), with emphasis on language growth from birth to age five. An extensive survey with key examples of literature and language activities which support children's readiness for literacy. Implications of family and social input, including mixed or multiple languages and inclusion of literature from a variety of languages and cultures. Consideration of special cases (hearing or vision impaired, for example) and of the relationship of spoken to written language. Application to childcare or preschool setting.

3 hours lecture.

ECE 158 * Health, Safety and Nutrition for Young Children (3)

Prerequisite(s): None.

In-depth examination of comprehensive health, mental health, safety, and nutrition concepts and their applications and implications for developing quality child development and early childhood education programs.

3 hours lecture.

ECE 160 * Early Childhood Growth and Development (3)

Prerequisite(s): None.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

This course addresses growth and development from conception to middle childhood, and socialization from infancy to middle childhood, with implications for childcare providers and primary school teachers. Topics covered also include health, safety, and nutrition.

3 hours lecture.

ECE 161 * Understanding Families, Community and Diversity (3)

Prerequisite(s): None.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

An introduction to skills for early childhood caregivers and teachers to use with families through reading, classroom participation, lectures, discussions, observations, and practical experience. Emphasis will be placed on recognizing and understanding the role of cultural and community diversity in the education of young children.

3 hours lecture.

ECE 170 * Curriculum Development for Early Childhood Education (3)

Prerequisite(s): None.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

Emphasis on methods of selecting and presenting developmentally appropriate practices and creating activities which enhance optimal growth for infants to age 8. Also included will be planning quality daily activities, establishing routines, and program assessment.

3 hours lecture.

ECE 172 Teaching Strategies for Early Childhood Education (3)

Prerequisite(s): None.

Recommended Preparation: Concurrent employment in an early childhood care or education facility, or concurrent enrollment in Cooperative Education in an early childhood care or education facility.

This course provides an overview of a variety of techniques to reach all learning styles, while utilizing developmentally appropriate practices when teaching young children. Emphasis will be on consistent planning and teaching activities which support development of all children creating an environment where children experience optimum growth.

3 hours lecture.

ECE 173 * Administration of Early Childhood Care and Education Programs (3)

Prerequisite(s): ENG 100 or placement in ENG 101, and six credit hours in ECE coursework.

Topics include in-depth examination of child development and preschool program management principles and practices, legal responsibilities and mandates, and developmentally, culturally, and geographically sound programming.

3 hours lecture.

ECE 174 * Behavior Management (3)

Prerequisite(s): None.

Recommended Preparation: Concurrent working or work-study placement with young children.

Designed for teachers, prospective teachers, parents or caregivers of young children to learn behavior management techniques. Topics discussed will include learning styles, communicating and maintaining behavioral expectations, stress management, leadership styles, bias and prejudice, behavior modification, self-assessment, and setting up positive environments for young children.

3 hours lecture.

ECN - Economics

ECN 201 * (SUN# ECN 2201) Principles of Macroeconomics (3)

Prerequisite(s): ENG 101.

A broad overview of the national and international macroeconomy. The course focuses on the study of total supply and demand as applied to the macroeconomic problems of unemployment, inflation, and economic growth. Specific areas of study will include national income accounting, fiscal policy, monetary policy, and international trade theory.

3 hours lecture.

ECN 202 * (SUN# ECN 2202) Principles of Microeconomics (3)

Prerequisite(s): ENG 101.

A study of individual market interaction with a focus on individual supply and demand. Specific topics include the study of consumer theory, cost and production for the individual firm, pure competition, pure monopoly, and the international finance markets.

3 hours lecture.

EDU - Education

EDU 020 Fundamental Academic Skills Training (3)

Prerequisite(s): Placement by Army Education Center Coordinator.

A review of basic skills for reading, spelling, grammar, composition, and mathematics with emphasis on improving test-taking skills. Upon successful completion, students will be prepared to enter ENG 100 and MAT 071 or higher.

3 hours lecture.

EDU 021 Preparing for ASVAB Test Taking (1)

Prerequisite(s): Placement by Army Education Center Coordinator.

Course is designed to improve basic test-taking skills for the Armed Services Vocational Aptitude Battery (ASVAB) with emphasis on arithmetic reasoning, word knowledge and reading comprehension.

1 hour lecture.

EDU 101 Fundamentals of Education (3)

Prerequisite(s): Enrollment in Arizona Tech Prep Education Professions program.

This course provides instruction in education career choices, education structure and systems, and the legal/ethical responsibilities of educators. It provides instruction in developmental stages of children in education theory and in pedagogy and methodology. This course is designed to articulate with high school Education Profession programs.

3 hours lecture.

EDU 201 Introduction to Education (3)

Prerequisite(s): ENG 101 or concurrent enrollment, and RDG 122 or exemption.

An overview of public education: the education profession, educational institutions, and educational systems within American society. Includes the study of current educational issues and of educators' roles, responsibilities, and qualifications; and offers the opportunity to apply educational theories and methodologies during 32 hours of supervised classroom observations in public school settings. Requires appropriate Department of Public Safety fingerprint clearance and related fees.

2 hours lecture, 2 hours laboratory.

EDU 203 Foundations of Instructional Techniques (3)

Prerequisite(s): None.

A study of learner-centric instructional techniques. Emphasis is on verbal and nonverbal instructional behaviors, and on classroom management strategies. Attention is paid to collaborative problem-solving and active learning techniques, generational attributes, and various learning styles.

3 hours lecture.

EDU 204 Learner-Centered Instruction (3)

Prerequisite(s): EDU 203 or permission of instructor.

An in-depth study of how to structure student-centric instruction, with emphasis on critical thinking and lifelong learning.

3 hours lecture.

EDU 205 Theoretical Dynamics of Instruction (3)

Prerequisite(s): EDU 204 or permission of instructor.

An analysis of various learning and motivational theories and their application to adult learning.

3 hours lecture.

EDU 206 Mentoring Practicum (4)

Prerequisite(s): EDU 205 or permission of instructor.

A practical application of mentoring theory based on the pairing of an experienced instructor with a protege. Requires a minimum of 45 hours of direct mentoring.

3 hours lecture, 3 hours laboratory.

EDU 207 Instructional Design for Adult Education (3)

Prerequisite(s): EDU 205 or permission of instructor.

An introduction to the instructional design technique of Analysis, Design, Development, Implementation, and Evaluation (ADDIE). Topics include learning rubrics, assessment, and delivery considerations.

3 hours lecture.

EDU 208 Capstone Practicum in Instructional Techniques (4)

Prerequisite(s): EDU 207.

A capstone project that applies both learner-centric instructional techniques and the elements of Analysis, Design, Development, Implementation, and Evaluation (ADDIE) to a curriculum of the student's choosing.

3 hours lecture, 3 hours laboratory.

EDU 218 * Introduction to Structured English Immersion (3)

Prerequisite(s): Arizona Teaching and/or Administrative certification or departmental approval.

This course addresses current educational and legal requirements for serving English Language Learners (ELL). Topics include ELL proficiency standards, assessment, foundations of Structured English Immersion (SEI), and SEI strategies. Focus is on SEI; however, comparison and evaluation of various types of language education models, such as English as a Second Language (ESL) and bilingual instruction, are included. This course meets Arizona Department of Education requirements for three semester hours (45 contact hours) and leads to augmented provisional SEI endorsement, required for Teaching and/or Administrative certification.

3 hours lecture.

EDU 221 * English as a Second Language/Structured English Immersion Teaching Methods (3)

Prerequisite(s): Arizona teaching and/or Administrative certification or departmental approval.

This course will provide the student with the methodologies of planning, developing and evaluating lesson plans in all content areas as they relate to Structured English Immersion (SEI) and English Language Learners (ELL) standards. Emphasis is placed on components of curriculum content, teaching strategies, SEI foundations, Assessment and Data analysis and the role of culture in learning. This course meets Arizona Department of Education requirements for SEI endorsement (45 contact hours) and Teaching/Administrator certificate.

3 hours lecture.

EDU 222 * Introduction to Special Education (3)

Prerequisite(s): ENG 101, and RDG 122 or exemption.

The study of special education with emphasis on current educational practices and related educational theories; and on identification and characteristics of emotionally disabled, learning disabled, mentally disabled and gifted children. Includes a review of cultural considerations; autism; AA and ADHD; early childhood and K-12 special education; student transitioning within the school and between the school and the community; and appropriate classroom and community-based approaches to accommodating the special education student.

3 hours lecture.

EDU 224 Field Experience in Education (1-6)

Prerequisite(s): Declared major in education or closely related field and approval of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing.

A supervised internship in a pre-school, elementary or secondary educational institution designed to provide hands-on classroom experience. Number of credits determined by the total hours to be spent at the job site in a given semester.

EDU 226 Cultural Diversity in Education (3)

Prerequisite(s): ENG 101, and RDG 122 or exemption.

An analysis of the relationship of cultural values to the formation of the child's self-concept and learning style as well as an examination of the impact of prejudice, stereotyping and cultural incompatibilities on the efficacy of the educational process. This course emphasizes preparing future teachers who will provide an equal educational opportunity to all students regardless of their racial/cultural group or background.

3 hours lecture.

EDU 230 * Classroom Relationships (3)

Prerequisite(s): EDU 201.

Foundation in classroom management and communication techniques. Topics discussed will include learning styles, discipline, stress management, leadership styles, bias and prejudice, behavior management, self-assessment, and positive learning environments.

3 hours lecture.

EDU 280 * Methodology for Teaching at the Community College (1)

Prerequisite(s): Cochise College instructor qualified.

Recommended Preparation: Basic computer skills.

An exploration of the role of the community college and its service to the community. Emphasized are teaching and learning styles, adult learning and motivation theory, teaching strategies, assessment techniques, and legal issues related to teaching on the community college level.

1 hour lecture.

EDU 281 Teaching in an Online Environment (1)

Prerequisite(s): None.

Recommended Preparation: Basic computer skills.

A study of web-based techniques and methods used for online, blended, and face-to-face instruction. Topics include instructional design, cybergogy, best practices, college and campus policies, and the Virtual Learning Environment (VLE).

1 hour lecture.

EGR - Engineering

EGR 102 (SUN# EGR 1102) Principles of Engineering (3)

Prerequisite(s): MAT 151 and MAT 182, or MAT 187, or concurrent enrollment in MAT 220.

An introduction to the principles of engineering and their application to design and problem-solving. Working in teams, students use the design process to create and develop engineering projects that emphasize sustainability, and they investigate how engineers use spreadsheets as a problem-solving tool. They also explore career options and discuss personal and business ethics.

3 hours lecture.

EGR 122 *‡ Programming for Engineering and Science (4)

Prerequisite(s): MAT 151 or higher.

An introduction to computer programming with an emphasis on problem-solving applications in the fields of engineering and science. Includes structured programs, data types, operations, repetitions, arrays, functions, data files, address pointers, and character strings.

3 hours lecture, 2 hours laboratory.

EGR 202 ‡ Electrical Circuits (4)

Prerequisite(s): MAT 262 and PHY 231.

A fundamental study of electrical and electronic circuits, and of the principles for analyzing linear and nonlinear circuits. Topics include circuit elements, Ohm's Law, Kirchhoff's Laws, the superposition theorem, Thevenin's and Norton's theorems, amplifiers, electrical networks with capacitors and/or inductors, and alternating current (AC) power.

3 hours lecture, 3 hours laboratory.

EGR 210 Statics (3)

Prerequisite(s): MAT 231 and PHY 230.

A basic analysis of static mechanical systems for civil, as well as structural, and mechanical engineering students. Topics include vector algebra, equilibrium of particles and rigid bodies, forces, moments, couples, equivalent force systems, analysis of simple structures (trusses, beams, frames, cables, and simple machines), friction, and first and second moments of area (moment of inertia).

3 hours lecture.

EGR 213 Mechanics of Materials (3)

Prerequisite(s): EGR 210.

An introduction to the analysis of the mechanical properties of materials for civil as well as structural engineering students. Topics include thin-walled pressure vessels, direct shear stresses, torsion, shearing force and bending moment, and elastic deflection of beams, columns, combined stresses, and members subject to combined loadings.

3 hours lecture.

EGR 214 Dynamics (3)

Prerequisite(s): EGR 210.

An advanced analysis of dynamic mechanical systems (the study of the motion of body under the action of forces) for civil, as well as structural, and mechanical engineering students. Topics include rectilinear and curvilinear motion; and rectangular, tangential, normal, radial, and transverse components. Also covers acceleration, D'Alembert's principle, plane of a rigid body, and rotation.

3 hours lecture.

ELT - Electronics

ELT 100 Electronics Foundations (3)

Prerequisite(s): None.

An introduction to the principles of electronics. Topics include direct and alternating circuits, passive and active components, Ohm's and Watt's Laws, network theorems, series and parallel resonance, and schematic diagrams. This course is offered only at the Arizona Department of Corrections in Douglas.

3 hours lecture.

ELT 102 Basic Information Systems Installation Course (8)

Prerequisite(s): Approval for enrollment from the Army Training and Doctrine Command.

A theoretical and practical study of the restoration and installation of information systems, focusing on standard practices and techniques of communications-electronics (C-E) installation. As an Army Training and Doctrine Command-recognized course of study, successful course completers will be awarded a skill identifier I.

3 hours lecture, 13 hours laboratory.

ELT 103 Information Systems External Installation (8)

Prerequisite(s): Approval for enrollment from the Army Training and Doctrine Command, including secret security clearance.

Recommended Preparation: Qualification in the Military Occupational Specialty (MOS) 31L.

A theoretical and practical study of basic splicing operations for outside cable plants, focusing on installation of commercial and fiber optic communication cables on telephone poles, in manholes and underground structures, and as buried installations. Successful course completers will be certified in basic pole climbing, fiber optics and communication cable installation and connectorization.

3 hours lecture, 12.5 hours laboratory.

ELT 105 ‡ Introduction to DC Circuits (3)

Prerequisite(s): ELT 110, MAT 123, or concurrent enrollment.

The analysis of direct current resistive circuits, with an emphasis on Ohm's Law and Kirchhoff's Laws, the superposition theorem, and Thevenin's and Norton's theorems.

2 hours lecture, 3 hours laboratory.

ELT 106 ‡ Introduction to AC Circuits (4)

Prerequisite(s): ELT 105.

An introduction to alternating current passive circuits and the application of basic trigonometry and vectors to circuit solutions.

3 hours lecture, 3 hours laboratory.

ELT 110 Mathematics for Electronics (3)

Prerequisite(s): One year of high school algebra or equivalent.

A review of basic arithmetic and the study of algebraic principles as they relate to electronic circuitry. Includes fractions, decimals, fundamental algebra, scientific notation, graphing, linear equations, and DC electric circuits.

3 hours lecture.

ELT 125 ‡ Electronic Circuits and Systems (4)

Prerequisite(s): ELT 106.

A study of large signal diode and filter analysis, voltage, and current regulation, with an emphasis on the field effect transistor as an amplifier, the Miller Effect, frequency response, and feedback.

3 hours lecture, 3 hours laboratory.

ELT 133 ‡ Digital Circuits and Systems (4)

Prerequisite(s): One year of high school algebra or equivalent.

A study of number systems, Boolean algebra, and combinational and sequential logic circuits and systems.

3 hours lecture, 3 hours laboratory.

ELT 222 ‡ Semiconductors and Transistors (4)

Prerequisite(s): ELT 106.

A comprehensive study of semiconductor devices, with an emphasis on the qualitative and quantitative analysis of semiconductor circuits. Includes the small signal analysis of diodes and transistors, DC biasing, load lines, approximate hybrid parameters, and multistate systems.

3 hours lecture, 3 hours laboratory.

ELT 245 ‡ Communication Electronics I (4)

Prerequisite(s): ELT 125.

The application of qualitative and quantitative theoretical concepts to communications circuits. Includes AM and FM receiver systems, voltage and power amplifiers, feedback, oscillators, resonance, filters, coupling, frequency synthesizers, and phase-lock techniques.

3 hours lecture, 3 hours laboratory.

ELT 247 ‡ Communication Electronics II (4)

Prerequisite(s): ELT 245.

A continuation of ELT 245 that includes AM and FM transmitter systems, transmission lines, antennas, and propagation devices. Emphasis is on the use of electronic test equipment in the analysis and adjustment of receivers and transmitters.

3 hours lecture, 3 hours laboratory.

ELT 265 ‡ Microprocessors and Microcomputers (4)

Prerequisite(s): ELT 133.

An introduction to the architecture of microprocessors and to the organization, programming, interfacing, and control applications of microcomputers.

3 hours lecture, 3 hours laboratory.

EMT - Emergency Medical Technology

EMT 174 ‡ Emergency Medical Technician (8)

Prerequisite(s): RDG 122 or exemption. Students taking this course for state or national certification must be 18 within six months of course completion.

A study of anatomy and physiology, signs and symptoms of illness and injury, patient assessment, procedures associated with the provision of emergency medical care, triage, basic life support systems, and basic legal responsibilities. Equips students with the knowledge and skills required by the National Registry of Emergency Medical Technicians (NREMT) and the Arizona Department of Health Services – Bureau of Emergency Medical Services (ADHS-BEMS) to practice as an Emergency Medical Technician. Students desiring NREMT/ADHS-BEMS certification must complete the state-required number of clinical experience hours with an Emergency Medical Service provider of out-of-hospital emergency care. Meets the ADHS-BEMS guidelines and is approved by the state of Arizona and the National Registry of EMTs.

Medical Direction: Arizona Certified EMTs are authorized to provide treatment, perform procedures, and utilize skills—as defined by the 2009 National EMS Education Standards—only under the medical control of an approved medical director or certified base hospital.

7 hours lecture, 3 hours laboratory.

ENG - English

ENG 001 Study Skills (1)

Prerequisite(s): None.

A review of basic techniques for success in college, including practical exercises in listening to lecturers, concentration, time management, note-taking, test-taking, textbook analysis and review, outlining, summarizing, writing essay questions, and using the library and the microcomputer to study spelling and vocabulary.

1 hour lecture.

ENG 090 English Fundamentals I (3)

Prerequisite(s): Placement test score or permission of instructor.

Intensive instruction in English grammar and mechanics, terminology and rules, writing and editing at the sentence level, and vocabulary development; emphasis on self-assessment, with the goal of helping students identify their own idiosyncratic patterns of grammar and mechanical errors, including extensive computer-based practice.

3 hours lecture.

ENG 095 English Fundamentals II (3)

Prerequisite(s): Placement test score, ENG 090, or permission of

instructor.

A review of standard written English that continues the developmental sequence begun in ENG 090, with focus on grammar, mechanics, and the writing process at the paragraph level, including extensive computer-based practice.

3 hours lecture.

ENG 100 * Intermediate Writing (3)

Prerequisite(s): Placement test score, ENG 095, or permission of instructor.

Recommended Preparation: Keyboarding skills.

Introduction to and review of paragraph and essay writing skills with emphasis on unity, support, and coherence of ideas. A general review of vocabulary, homophones, grammar, punctuation, and usage. An introduction to college-level research skills and analysis of short fiction.

3 hours lecture.

ENG 101 * (SUN# ENG 1101) Composition (3)

Prerequisite(s): Placement test score, or ENG 100 or its equivalent.

A study of and practice in the process of writing, methods of organization, and expository patterns. Students write a documented paper based on library and other sources.

3 hours lecture.

ENG 101A Composition - Flex A (3)

Prerequisite(s): Placement test score, ENG 100, or previous English instructor recommendation.

Recommended Preparation: Keyboarding skills.

Study of and practice in the process of writing, methods of organization, expository patterns, and a documented paper based on library and other resources, with a review of usage and syntax.

3 hours lecture.

ENG 101B Composition - Flex B (3)

Prerequisite(s): Placement test score, ENG 101A, or instructor recommendation.

Recommended Preparation: Keyboarding skills.

Study of and practice in the process of writing, methods of organization, expository patterns, and a documented paper based on library and other resources, with a review of usage and syntax.

3 hours lecture.

ENG 102 * (SUN# ENG 1102) English Composition (3)

Prerequisite(s): ENG 101.

A continuation of ENG 101 with special emphasis on the techniques involved in writing argument, persuasion, and literary analysis.

3 hours lecture.

ENG 102H English Composition (3)

Prerequisite(s): ENG 101 with a grade of A, recommendation of ENG 101 instructor, minimum 3.5 GPA, completion of 12 Cochise College transfer credits, or permission of instructor.

A continuation of ENG 101 with special emphasis on the techniques involved in writing argument, persuasion and literary analysis.

3 hours lecture.

ENG 119 * Creative Writing (3)

Prerequisite(s): ENG 102 or permission of instructor.

An introduction to creative writing which models examples of narrative prose, poetry, and drama. In addition, students' original work is analyzed and critiqued.

3 hours lecture.

ENG 219 * Advanced Creative Writing (3)

Prerequisite(s): ENG 119 or permission of instructor.

A continuation of creative writing which models examples of narrative prose, poetry, and drama. In addition, students' original work is analyzed and critiqued.

3 hours lecture.

ENG 220 * British Literature I (3)

Prerequisite(s): ENG 102 or permission of instructor.

A survey of the major British authors from the beginnings to the early 18th century.

3 hours lecture.

ENG 221 British Literature II (3)

Prerequisite(s): ENG 102 or permission of instructor.

A survey of the major British authors from the 18th century to the present.

3 hours lecture.

ENG 222 * Introduction to Shakespeare (3)

Prerequisite(s): ENG 102 or permission of instructor.

An exploration of selected histories, tragedies, and problem plays/comedies by William Shakespeare.

3 hours lecture.

ENG 224 * American Literature I (3)

Prerequisite(s): ENG 102 or permission of instructor.

A survey of American literature from the pre-colonial period to 1860.

3 hours lecture.

ENG 225 * American Literature II (3)

Prerequisite(s): ENG 102 or permission of instructor.

A survey of selected works by major American authors from post-Civil War to the present.

3 hours lecture.

ENG 228 * Mythology and Folklore (3)

Prerequisite(s): ENG 102 or permission of instructor.

A survey of myths and folktales from classical to present times. Covers the basic concepts of myths and the approaches to understanding them. Includes the role of folklore in culture.

3 hours lecture.

ENG 230 Literature of the Southwest (3)

Prerequisite(s): ENG 102 or permission of instructor.

Introduction to the literature of the American Southwest, spanning historical through contemporary times. Emphasis on the environmental, historical, and cultural influences on southwestern literary styles, genres, themes, and images.

3 hours lecture.

ENG 231 * Native American Literature (3)

Prerequisite(s): ENG 102 or permission of instructor.

An introduction to Native American literature which includes oral traditions and stories, autobiographies, fiction, and poetry. Emphasis is on the influences of culture and history on Native themes and symbols.

3 hours lecture.

ENG 255 * Introduction to the English Language (3)

Prerequisite(s): ENG 101, ENG 102, or permission of instructor.

An introduction to the basic concepts in the study of the English language: structure, interpretation, variation and changes. Overview of several specializations within linguistics with special attention to language acquisition and application to the teaching of English.

3 hours lecture.

ENG 257 Literary Magazine Production (3)

Prerequisite(s): ENG 101.

Production of the college literary and arts magazine. Includes application of promotion, editing, design, layout, and production techniques. Identical to JRN 257.

3 hours lecture.

ENG 260 Irish Literature (3)

Prerequisite(s): ENG 102 or permission of instructor.

An exploration of selected traditional, modern, and contemporary Irish literary works.

3 hours lecture.

ENG 265 Major American Writers (3)

Prerequisite(s): ENG 102 or permission of instructor.

An exploration of selected works by major American authors from the last century to the present.

3 hours lecture.

ENG 273 * Women and Literature (3)

Prerequisite(s): ENG 102 or permission of instructor.

This course is a survey of literature by and about women, including the study of issues concerning women in literature and the changing images of women. It includes literary analysis of selected writings.

3 hours lecture.

EQS - EQUINE SCIENCE

EQS 105 ‡ Western Equitation I (3)

Prerequisite(s): None.

An introduction to the fundamentals of basic horsemanship and the skills of western riding. Topics include safe handling, grooming, and hoof picking. Also covers western saddling and bridling techniques.

1 hour lecture, 4 hours laboratory.

EQS 115 ‡ Equine Evaluation (3)

Prerequisite(s): None.

An introduction to the evaluation of a horse's conformation, structural soundness, athletic potential, trainability, and longevity as they all relate to performance. Covers terms used in judging horses.

3 hours lecture.

EQS 120 ‡ Equine and Stable Management I (3)

Prerequisite(s): None.

A hands-on introduction to daily stable operations in the care and management of horses. Students gain practical experience with an assigned horse in basic horse husbandry, horsemanship, and stable management. Topics include feeding, watering, stable sanitation, vaccines, parasite control, safety, horse behavior, health, wounds and their treatments, and recordkeeping.

1 hour lecture, 4 hours laboratory.

EQS 145 ‡ Equine Anatomy and Physiology (3)

Prerequisite(s): AGR 237.

An examination of the anatomy and physiology of equine body systems as they apply to raising, conditioning, training, and managing horses. Topics include the skeletal, muscular, cardiovascular, respiratory, digestive, urinary, nervous, integumentary, and endocrine systems.

3 hours lecture.

EQS 205 ‡ Western Equitation II (3)

Prerequisite(s): EQS 105.

A continuation of the fundamentals of basic horsemanship, including improved body position, increased control, and an advanced western riding skill set. Focus is on rider control, transitions and advanced maneuvers, and riding patterns.

1 hour lecture, 4 hours laboratory.

EQS 215 ‡ Equine Lameness (3)

Prerequisite(s): EQS 115.

A continuing study of basic equine skeletal anatomy with emphasis on the normal function of front and hind legs and feet. Covers methods of evaluating various deviations that present as lameness in horses. Topics include bodily response to injury, forms of therapy, types of conditioning, and rehabilitative techniques for returning horses to usefulness and performance.

3 hours lecture.

EQS 220 ‡ Equine and Stable Management II (3)

Prerequisite(s): EQS 120.

Advanced practical experience in horse and stable management. Students gain additional practical and supervisory experience in daily stable operations and in the care and management of horses. Topics include nutrition, diseases and their prevention, parasite and rodent control, safety, horse handling, wounds and their treatments, inventory control, recordkeeping, and industry-standard operating procedures.

1 hour lecture, 4 hours laboratory.

EQS 245 ‡ Equine Reproduction (3)

Prerequisite(s): AGR 237 and EQS 145.

A study of equine reproduction—selection, breeding, and management practices—in the industry. Topics include anatomy and physiology of the mare and the stallion; detection of the in-heat

mare and breeding practices; and management of the pregnant mare, nutritional considerations during pregnancy and lactation, complications of pregnancy and foaling, foaling practices, and management of the foal.

3 hours lecture.

ESL - English as a Second Language

ESL 010 ESL Grammar I (3)

Prerequisite(s): Placement test recommendation.

An introduction to basic English grammar for beginning to high-beginning students whose native language is not English, with emphasis on the syntax and structure of simple sentences.

3 hours lecture, 2 hours laboratory.

ESL 012 ESL Reading I (3)

Prerequisite(s): Placement test recommendation.

An introduction to basic reading skills for beginning to high-beginning students whose native language is not English, with emphasis on vocabulary development, comprehension, and structure.

3 hours lecture, 2 hours laboratory.

ESL 014 ESL Writing I (3)

Prerequisite(s): Placement test recommendation.

A beginning to high-beginning level writing course for students learning English as a second language designed to preview the writing process with emphasis on writing paragraphs on simple, controlled topics which require mainly isolated tense usage.

3 hours lecture, 2 hours laboratory.

ESL 016 Oral Communication I (3)

Prerequisite(s): Placement test recommendation.

An introduction to oral communication skills in English for beginning to high-beginning students whose native language is not English, with emphasis on vocabulary, fundamentals of English pronunciation and development of basic listening and speaking skills.

3 hours lecture, 2 hours laboratory.

ESL 017 Intensive Reading and Writing Level I (3)

Prerequisite(s): Placement test recommendation.

An introduction to basic reading and writing skills for beginning to high-beginning students whose native language is not English.

3 hours lecture.

ESL 018 Intensive Grammar, Listening and Speaking Level I (3)

Prerequisite(s): Placement test recommendation.

An introduction to basic grammar, listening and speaking skills for beginning to high-beginning students whose native language is not English.

3 hours lecture.

ESL 020 ESL Grammar II (3)

Prerequisite(s): ESL 010 or placement test recommendation.

A review of basic English grammar and an introduction to fundamental English grammar for high-beginning to low-intermediate students whose native language is not English, with emphasis on the syntax and structure of simple and compound sentences.

3 hours lecture, 2 hours laboratory.

ESL 022 ESL Reading II (3)

Prerequisite(s): ESL 012 or placement test recommendation.

A continuation of basic reading skills and strategies for high-beginning to low-intermediate students whose native language is not English, with emphasis on vocabulary development, comprehension, and structure.

3 hours lecture, 2 hours laboratory.

ESL 024 ESL Writing II (3)

Prerequisite(s): ESL 014 or placement test recommendation.

A high-beginning to low-intermediate writing course designed to introduce the writing process with emphasis on topic sentences, paragraph development, cognitive skills and logical organization.

3 hours lecture, 2 hours laboratory.

ESL 026 Oral Communication II (3)

Prerequisite(s): ESL 016 or placement test recommendation.

A review and continuation of oral communication skills in English for high-beginning to low-intermediate students whose native language is not English, with emphasis on vocabulary, pronunciation, and development of basic listening and speaking skills.

3 hours lecture, 2 hours laboratory.

ESL 027 Intensive Reading and Writing Level II (3)

Prerequisite(s): Either ESL 012 and ESL 014, or ESL 017 and ESL 018, or placement test recommendation.

A continuation of basic reading and writing strategies for high-beginning to low-intermediate students whose native language is not English.

3 hours lecture.

ESL 028 Intensive Grammar, Listening and Speaking Level II (3)

Prerequisite(s): ESL 018.

A review and continuation of basic English structure as needed for general proficiency at the high-beginning to low-intermediate level for students whose native language is not English. The course also includes study of vocabulary, listening comprehension, and speaking in controlled communication practice.

3 hours lecture.

ESL 030 ESL Grammar III (3)

Prerequisite(s): ESL 020 or placement test recommendation.

A review of fundamental and an introduction to more complex English grammar for low-intermediate to intermediate students whose native language is not English, with emphasis on the syntax and structure of simple, compound, and complex sentences.

3 hours lecture, 2 hours laboratory.

ESL 032 ESL Reading III (3)

Prerequisite(s): ESL 022 or placement test recommendation.

A review of reading skills and strategies for low-intermediate to intermediate students whose native language is not English, with emphasis on vocabulary development, comprehension, structure, and basic study skills.

3 hours lecture, 2 hours laboratory.

ESL 034 ESL Writing III (3)

Prerequisite(s): ESL 024 or placement test recommendation.

A low-intermediate level to intermediate level writing course for students learning English as a Second Language, designed to develop the writing process with emphasis on topic sentences, methods of multi-paragraph development, cognitive skills and logical organization.

3 hours lecture, 2 hours laboratory.

ESL 036 Oral Communication III (3)

Prerequisite(s): ESL 026 or placement test recommendation.

A review and continuation of oral communication skills in English for low-intermediate to intermediate students whose native language is not English, with emphasis on vocabulary, pronunciation, and development of listening and speaking skills.

3 hours lecture, 2 hours laboratory.

ESL 037 Intensive Reading and Writing Level III (3)

Prerequisite(s): Either ESL 022 and ESL 024, or ESL 027, or placement test recommendation.

A review of fundamental and an introduction to more complex reading and writing skills in English for low-intermediate to intermediate students whose native language is not English.

3 hours lecture.

ESL 038 Intensive Grammar, Listening and Speaking Level III (3)

Prerequisite(s): Either ESL 020 and ESL 026, or ESL 028, or placement test recommendation.

A review of fundamental and an introduction to more complex grammar, listening and speaking skills in English for low-intermediate to intermediate students whose native language is not English.

3 hours lecture.

ESL 040 ESL Grammar IV (3)

Prerequisite(s): ESL 030 or placement test recommendation.

A review of basic and intermediate and an introduction to advanced English grammar for intermediate to high-intermediate students whose native language is not English, with emphasis on the syntax and structure of simple, compound, and complex sentences.

3 hours lecture, 2 hours laboratory.

ESL 042 ESL Reading IV (3)

Prerequisite(s): ESL 032 or placement test recommendation.

A review of reading skills and strategies for intermediate to high-intermediate students whose native language is not English. Focus is on expanding vocabulary, increasing comprehension and the understanding of structure, and improving study skills.

3 hours lecture, 2 hours laboratory.

ESL 044 ESL Writing IV (3)

Prerequisite(s): ESL 034 or placement test recommendation.

A review of writing fundamentals and an introduction to more complex writing skills for intermediate to high-intermediate students learning English as a Second Language. Designed to review the writing process, to teach students to develop coherent essays, and to increase their vocabulary for academic discourse.

3 hours lecture, 2 hours laboratory.

ESL 046 Oral Communication IV (3)

Prerequisite(s): ESL 036 or placement test recommendation.

A review and continuation of oral communication skills in English for intermediate to high-intermediate students whose native language is not English, with emphasis on vocabulary, pronunciation, and development of academic listening and speaking skills in English.

3 hours lecture, 2 hours laboratory.

ESL 047 Intensive Reading and Writing IV (3)

Prerequisite(s): Either ESL 032 and ESL 034, or ESL 037, or placement test recommendation.

A review of fundamentals and an introduction to more complex reading and writing skills in English for intermediate to high-intermediate students whose native language is not English.

3 hours lecture.

ESL 048 Intensive Grammar, Listening and Speaking Level IV (3)

Prerequisite(s): Either ESL 030 and ESL 036, or ESL 038, or placement test recommendation.

A review of fundamentals and an introduction to more complex grammar, listening and speaking skills in English for intermediate to high-intermediate students whose native language is not English.

3 hours lecture.

ESL 070 ESL for Professionals I (6)

Prerequisite(s): No previous English necessary; placement is determined by test.

An integrated-skills, content-based course designed for students who have little or no knowledge of English. Introduction to the sounds and intonation patterns of English, elementary vocabulary, and the structure of English as used in simple sentences.

6 hours lecture.

ESL 072 ESL for Professionals II (6)

Prerequisite(s): ESL 070; placement may also be determined by standardized test.

A continuation of ESL 070; an integrated-skills, content-based course designed to give high-beginner level students practice using English. Covers grammar, reading, vocabulary, listening comprehension, pronunciation and intonation patterns. Activities build on skills developed in ESL 070.

6 hours lecture.

ESL 074 ESL for Professionals III (6)

Prerequisite(s): ESL 072; placement may also be determined by standardized test.

A continuation of ESL 072, this is an integrated-skills course designed to give low-intermediate students practice using English. The course covers grammar, reading, vocabulary, listening comprehension, pronunciation and intonation patterns. Activities build on skills developed in ESL 072.

6 hours lecture.

ESL 076 ESL for Professionals IV (6)

Prerequisite(s): ESL 074; placement may also be determined by standardized test.

A continuation of ESL 074; an integrated-skills, content-based course designed to give high-intermediate students practice using English. Covers grammar, reading, vocabulary, listening comprehension, pronunciation and intonation patterns. Activities build on skills developed in ESL 074.

6 hours lecture.

FON - Food and Nutrition

FON 101 Nutrition (3)

Prerequisite(s): RDG 110, placement in or completion of RDG 122, or exemption.

This course provides a study of basic nutrition principles and their application to the normal diet, and to health and cultural patterns. Some emphasis will be placed on diet modification in common health disorders, i.e., obesity, heart disease, and diabetes.

3 hours lecture.

FON 201 * Applied Nutrition (3)

Prerequisite(s): FON 101 or permission of instructor.

This course provides an understanding of the various aspects of nutrition and prepares students for further study of health and how it is related to nutrition and activity. Students will increase their awareness of nutrition, the structure and function of the digestive system, aspects of nutrition within our society, and methods to enhance health by dietary changes.

3 hours lecture.

FOR - Forensic Science

FOR 105 ‡ Forensic Science: Physical Evidence (4)

Prerequisite(s): MAT 081 or higher, and RDG 122 or exemption.

An introduction to the basic concepts of physical science and their application to forensic science, including the scientific examination, comparison, and analysis of physical evidence for forensic purposes. Topics include the role of forensic science and evidence analysis as they relate to motion, optics, pattern evidence, and firearms and ballistics. The course also examines the basic principles of atomic theory, nuclear chemistry, and weapons of mass destruction.

3 hours lecture, 3 hours laboratory.

FST - Fire Science

FST 100 Introduction to Firefighting (3)

Prerequisite(s): None.

An introduction to firefighting including safety, fire behavior, equipment, operations, rescue, and communications.

3 hours lecture.

FST 101 ‡ Firefighter Safety and Entry-Level Operations (6)

Prerequisite(s): None.

The first in a series of four courses designed to train the student for a career in the fire service. This course will cover topics such as basic wildland firefighting, hazardous material first responder operations, firefighter orientation, fire behavior, building construction, and firefighter safety.

5 hours lecture, 3 hours laboratory.

FST 102 ‡ Firefighter Rescue Operation (4)

Prerequisite(s): FST 101 or permission of fire science program coordinator.

The second in a series of four courses designed to train the student for a career in fire service. The course will cover topics in rescue and extrication, vehicle extrication, forcible entry tools, forcible entry techniques and ground ladders.

3 hours lecture, 1.5 hours laboratory.

FST 103 ‡ Firefighter Ground Ladders and Hose Procedures (4)

Prerequisite(s): FST 102 or permission of fire science program coordinator.

The third in a series of four courses designed to train the student for a career in fire service. The course will cover topics in firefighter ladder application and basic fire hose techniques.

3 hours lecture, 1.5 hours laboratory.

FST 104 ‡ Fire Support Services (4)

Prerequisite(s): FST 103 or permission of fire science program coordinator.

The fourth in a series of four courses designed to train the student for a career in fire service. The course will cover topics in fire detection systems, sprinkler systems, basic fire cause and origin information, and fire education practices.

3 hours lecture, 1.5 hours laboratory.

FST 113 Firefighter Fitness I (3)

Prerequisite(s): Concurrent enrollment in FST 101 or FST 102.

A practical application of the skills taught in FST 101 and FST 102 with an emphasis on developing the basic level of fitness required in the firefighter profession. Identifies and introduces required firefighter skills, proper nutrition principles, strength-training and endurance techniques, and job-related agility assessments.

2 hours lecture, 2 hours laboratory.

FST 114 Firefighter Fitness II (3)

Prerequisite(s): FST 113, and concurrent enrollment in FST 103 or FST 104.

A practical application of the skills taught in FST 103 and FST 104 with an emphasis on further developing basic firefighter skills as they pertain to job-related fitness levels. Includes the mental aspects of job performance as well as agility and personal fitness assessments.

2 hours lecture, 2 hours laboratory.

FST 115 ‡ Fire Service Apparatus Driver/Operator (3)

Prerequisite(s): None.

Recommended Preparation: Fire department affiliation, or FST 101 and FST 102.

An introduction to the operation of different types of fire service apparatus. Includes driver/operator responsibilities, operation of emergency vehicles and aerial apparatus; inspection, testing, and maintenance of apparatus; and water supply systems, hydraulic calculations, and fire pump operations.

3 hours lecture, 1 hour laboratory.

FST 121 Hazmat Technician I (6)

Prerequisite(s): Fire department affiliation.

This course is the first in a series of three courses designed to train students in advanced techniques of hazardous materials emergency response. Upon completion of the three-course segment, students will be eligible to test for state Technician Certification in Hazardous Materials Emergency Response (OSHA 1910.120 & NFPA 472) Safety and Entry Level Operations.

6 hours lecture.

FST 222 Hazmat Technician II (5)

Prerequisite(s): FST 121 and fire department affiliation.

This course is the second in a series of three courses designed to train students in advanced techniques of hazardous materials emergency response. Upon completion of the three-course segment, students will be eligible to test for state Technician Certification in Hazardous Materials Emergency Response (OSHA 1910.120 and NFPA 472) Safety and Entry Level Operations.

5 hours lecture.

FST 223 Hazmat Technician III (5)

Prerequisite(s): FST 121, FST 222, and fire department affiliation.

This course is the third in a series of three courses designed to train students in advanced techniques of hazardous materials emergency response. Upon completion of the three-course segment, students will be eligible to test for state Technician Certification in Hazardous Materials Emergency Response (OSHA 1910.120 and NFPA 472) Safety and Entry Level Operations.

5 hours lecture.

FST 224 Field Experience in Fire Science Technology (1-6)

Prerequisite(s): A declared major in fire science technology and permission of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing and faculty recommendation.

A supervised cooperative education field experience involving the combined efforts of educators and employers. Students accomplish various academic and career-related objectives in fire science technology and related fields.

GEO - GEOGRAPHY

GEO 101 *‡ Physical Geography (4)

Prerequisite(s): RDG 122 or exemption, and completion of or concurrent enrollment in MAT 081 or higher, and ENG 100 or concurrent enrollment.

An introduction to the various features of the earth's physical environment including the origin and development of landforms and the composition of the earth's crust, weather, climate, vegetation, soils and mineral resources.

3 hours lecture, 3 hours laboratory.

GEO 121 * World Regional Geography (3)

Prerequisite(s): ENG 101 or concurrent enrollment, and RDG 122 or exemption.

An exploration of major world geographical regions with emphasis upon human cultural adaptation to the physical habitat.

3 hours lecture.

GLG - GEOLOGY

GLG 101 *‡ (SUN# GLG 1101) Introduction to Geology I (Physical) (4)

Prerequisite(s): None.

Recommended Preparation: MAT 081 or higher, and RDG 122 or exemption.

An introduction to the physical aspects of the Earth's crust. Includes scientific measurements, maps, and the scientific method; the hands-on identification and assessment of rocks and minerals; and basic geology--earth composition, surface processes, subsurface processes, investigative tools, geologic structures, geologic resources, and Earth history.

3 hours lecture, 3 hours laboratory.

GLG 102 *‡ Introduction to Geology II (Historical) (4)

Prerequisite(s): None.

Recommended Preparation: GLG 101, MAT 081 or higher, and RDG 122 or exemption.

An introduction to the basic geologic principles underlying historical geology and the evolution of landforms and life forms through geologic time. Deals with the identification and classification of major fossil groups; the identification and interpretation of rocks and of sedimentary textures, environments, and structures; plate tectonics, geologic time, and planetary evolution; and human evolution. Teaches how geologic features such as rock types and fossils are used to interpret and date past events. Emphasizes the evolving geology of North America and the evolution of life on Earth.

3 hours lecture, 3 hours laboratory.

GLG 192 ‡ Special Topics and Applications in Geology (0.25-4)

Prerequisite(s): None.

Recommended Preparation: Permission of instructor is strongly recommended.

A rotating forum/seminar/course or supplement to an existing geology course emphasizing geology or related topics. The title and credit hours for this course will vary each term depending on the topic.

GTC - GENERAL TECHNOLOGY

GTC 105 Manufacturing Materials and Processes (3)

Prerequisite(s): None.

The study of manufacturing materials, their characteristics and applications; manufacturing processes including machining, forming, welding and automated manufacturing techniques with emphasis on their relationship to drafting and design.

3 hours lecture.

GTC 121 Painting and Finishing Techniques (3)

Prerequisite(s): None.

Student preparation for proficiency in patching, repainting, and maintaining painted surfaces on the interior and exterior of building and structures with an emphasis on surface preparation,

the selection of paints, their application and the safe and proper storage of all painting materials and tools. This course is offered only at the Arizona Department of Corrections in Douglas.

2 hours lecture, 4 hours laboratory.

GTC 122 Refrigeration I (3)

Prerequisite(s): None.

A course to provide the student with proficiency in inspecting, troubleshooting, repairing and maintaining air conditioning and evaporative cooling systems with an emphasis on scheduling of seasonal maintenance, start-up and shut-down procedures. This course is offered only at the Arizona Department of Corrections in Douglas.

2 hours lecture, 4 hours laboratory.

GTC 128 Hazardous Materials and the EPA (3)

Prerequisite(s): None.

An introduction to the safe handling of refrigerants and hazardous materials in relation to the air conditioning and refrigeration field. Emphasis will be placed on EPA regulations and guidelines. This course is offered only at the Arizona Department of Corrections in Douglas.

3 hours lecture.

GTC 206 Engineering Materials and Processes (4)

Prerequisite(s): GTC 105.

Materials, their structures, properties, fabrication characteristics and applications. Material forming, joining and finishing processes. Automation and quality control.

5 hours lecture.

GTC 222 Refrigeration II (3)

Prerequisite(s): GTC 122.

A continuation of the fundamentals of refrigeration with an emphasis on the function of motors, controls, and the major components of the refrigeration system, to include evaporators, condensers, compressors, and expansion devices. This course is offered only at the Arizona Department of Corrections in Douglas.

3 hours lecture.

GTC 223 Heating and Air Conditioning (4)

Prerequisite(s): GTC 222.

An introduction to the various types of heating and air conditioning systems. Electrical devices, valves, controls and duct systems will also be explored. An emphasis will be placed on troubleshooting and repair. This course is offered only at the Arizona Department of Corrections in Douglas.

4 hours lecture.

GTC 227 Electricity and Wiring for HVAC/R (3)

Prerequisite(s): None.

A comprehensive study of electrical circuits and wiring diagrams used in the heating, ventilation, air conditioning, and refrigeration fields. This course will challenge students' understanding of electrical concepts, simple circuits, wiring techniques, troubleshooting, and repair strategies. This course is offered only at the Arizona Department of Corrections in Douglas.

2 hours lecture, 2 hours laboratory.

HIS - HISTORY

HIS 110 * History of the United States 1607-1877 (3)

Prerequisite(s): RDG 122 or exemption.

A study of the development of American characteristics and nationality from colonial beginnings through the period of Reconstruction, emphasizing the factors and forces which produced the Revolution, the Constitution, westward expansion, sectionalism, and the Civil War.

3 hours lecture.

HIS 111 * History of the United States Since 1877 (3)

Prerequisite(s): RDG 122 or exemption.

A study of the social, economic, and political forces that moved the United States through changing times from the post-Reconstruction era to the present, focusing on both domestic and foreign affairs in the country's last century of development.

3 hours lecture.

HIS 192 Special Topics in History (0.5-1)

Prerequisite(s): None.

Topics emphasizing local, regional, and international historical events vary according to student needs and interests.

HIS 201 History of Women in the United States (3)

Prerequisite(s): RDG 122 or exemption, and ENG 101.

The history of women in United States society from colonial times to the present with an emphasis on female leadership; the social, political, and economic roles of women; and the impact of women on the United States' historical evolution.

3 hours lecture.

HIS 229 * History of Mexico I (3)

Prerequisite(s): RDG 122 or exemption, and ENG 101.

A study of political, economic, social, and cultural developments from pre-Columbian civilizations to the War for Independence.

3 hours lecture.

HIS 230 * History of Mexico II (3)

Prerequisite(s): RDG 122 or exemption, and ENG 101.

A study of political, economic, social, and cultural developments from the War for Independence to modern times.

3 hours lecture.

HIS 240 * Survey of Western Civilization I (3)

Prerequisite(s): ENG 101, and RDG 122 or exemption.

A study of major historical trends from the emergence of western civilization through the legacy of Rome, with emphasis on the cultural development of humankind and historical relationships.

3 hours lecture.

HIS 241 * Survey of Western Civilization II (3)

Prerequisite(s): ENG 101, and RDG 122 or exemption.

A study of major historical trends in western civilization from the Middle Ages to the emergence of nation-states and the Enlightenment, with emphasis on the cultural development of humankind and historical relationships.

3 hours lecture.

HIS 242 * Survey of Western Civilization III (3)

Prerequisite(s): ENG 101, and RDG 122 or exemption.

A study of major historical trends in western civilization from the eve of the French Revolution to the present, with emphasis on the cultural development of humankind and historical relationships.

3 hours lecture.

HIS 274 The Holocaust (3)

Prerequisite(s): ENG 101.

A study of the causes, events, and legacies of World War II's Holocaust. Includes the history of European anti-Semitism, the historical antecedents and preconditions of the Holocaust, the Third Reich and the creation of a racial state, the "Final Solution," and the aftermath of the Holocaust. Also addresses the challenges posed by similar genocides in contemporary history.

3 hours lecture.

HLT - Health Technology

HLT 100 Health Technology Careers (3)

Prerequisite(s): None.

An introduction to health careers including basic information such as ethics, professional conduct, infection control, safety, communication and job skills. Some hands-on skills will be taught and some class time will be spent in specialty areas of a health care facility and/or public health agency.

3 hours lecture.

HLT 101 * Medical Terminology (2)

Prerequisite(s): RDG 122 or exemption.

An introduction to the body systems approach to learning medical language. Students use word parts to build, analyze, define, and spell medical terms. Topics include structural, directional, surgical, and diagnostic terms; disease and disorders; and pronunciations and abbreviations.

2 hours lecture.

HLT 109 ‡ Nursing Assistant (5)

Prerequisite(s): Appropriate placement test score or MAT 071; appropriate placement test score or RDG 020A; and current American Heart Association CPR and First Aid certification for healthcare providers or concurrent enrollment in HLT 111.

Approved by the Arizona State Board of Nursing to prepare students for nursing assistant certification. Emphasis is on communication, patient safety, anatomy and physiology, specific patient-care skills, and patient rights. Included are the nursing process and the legal and professional responsibilities of the nursing assistant. Also covers the basic physical, psychosocial, and cultural needs of all patients, with special emphasis on the geriatric population.

3 hours lecture, 6 hours laboratory.

HLT 110 ‡ CPR (0.5)

Prerequisite(s): None.

A course offering health care provider level of cardiopulmonary resuscitation. CPR card awarded upon successful course completion.

0.5 hour lecture.

HLT 111 ‡ CPR and First Aid (1)

Prerequisite(s): None.

A course offering health care provider level of cardiopulmonary resuscitation and basic first aid. CPR and First Aid cards awarded upon successful course completion.

1 hour lecture.

HLT 128 ‡ Medication Assistant - Certified (3)

Prerequisite(s): HLT 109 or equivalent, and six months working experience as a Certified Nursing Assistant.

The first of two courses approved by the Arizona State Board of Nursing to prepare Certified Nursing Assistants for medication assistant licensure. Emphasis is on the role of the medication assistant, drug laws, medication calculations, and the safe administration of various medications.

2 hours lecture, 3 hours laboratory.

HLT 129 ‡ Medication Assistant Externship (3)

Prerequisite(s): HLT 128.

The second of two courses approved by the Arizona State Board of Nursing to prepare Certified Nursing Assistants for medication assistant licensure. Emphasis is on the safe administration and proper documentation of drugs in a long-term care clinical setting, under the supervision of a licensed nurse.

3 hours lecture.

HLT 139 ‡ Medical Assistant I (8)

Prerequisite(s): BIO 160 or concurrent enrollment, HLT 101 or concurrent enrollment, MAT 071 or placement in MAT 081 or higher, and placement in RDG 122 or exemption. Prior to enrollment, students must also meet the following requirements: 1) Minimum 18 years of age upon course completion, 2) Negative tuberculin (TB) skin test or negative chest x-ray report, 3) Current Arizona Department of Public Safety Fingerprint Clearance Card, and 4) Acceptance into the medical assistant program.

This course teaches students the concepts, basic skills, and terminology necessary to function as a medical assistant. It introduces the guidelines and regulations governing medical assistants, and the responsibilities and liabilities encountered in administering a medical office. It includes the basic principles of human behavior and its effects on interactions. The laboratory portion of the course simulates hands-on application in a medical office.

7 hours lecture, 3 hours laboratory.

HLT 140 ‡ Medical Assistant II (12)

Prerequisite(s): BIO 160, HLT 101, HLT 111, and HLT 139.

A continuation of HLT 139, this course teaches students additional concepts, skills, and terminology. Emphasis is on administrative aspects of running a medical practice, such as billing and coding, scheduling appointments, and keeping electronic medical records. The laboratory portion of the course simulates hands-on application in a medical office setting. The clinical externship focuses on therapeutic skills and on effective communication with clients, physicians, physician assistants, nurse practitioners, and other health care professionals. Students learn the front and back office skills required to pass the Medical Assistant certification examination.

7 hours lecture, 16 hours laboratory.

HON - Honors

HON 250 Honors: Individual Project (1-4)

Prerequisite(s): 12 credits and minimum 3.5 GPA.

Recommended Preparation: ENG 102H.

A contractual project between student and faculty mentor focusing on creative scholarship. Contracts for honors projects are available at www.cochise.edu/honors.

HON 251 Honors Seminar (1)

Prerequisite(s): Minimum 3.5 GPA and permission of instructor.

An introduction to the honors philosophy, and a study of critical and creative thinking skills, learning techniques, academic ethics, research methods, and presentation practices.

1 hour lecture.

HON 260 The Human Quest for Utopia (3)

Prerequisite(s): ENG 102, 12 credits, and minimum 3.5 GPA.

Recommended Preparation: ENG 102H.

An interdisciplinary exploration of the history, literature, culture, art, philosophy, technology, sciences, and economies of utopian communities.

3 hours lecture.

HPE - Health and Physical Education

HPE 104A Sculpt and Stretch (1)

Prerequisite(s): None.

An introduction to exercises and activities focusing on the development of muscular strength, muscular endurance, and overall flexibility. Also includes the discussion and practice of breathing and relaxation techniques that promote wellness.

1 hour lecture, 1 hour laboratory.

HPE 104B Sculpt and Stretch - Extended Duration (2)

Prerequisite(s): None.

An introduction to exercises and activities focusing on the development of muscular strength, muscular endurance and overall flexibility. Also includes the discussion and practice of breathing and relaxation techniques that promote wellness. HPE 104B is an extended duration version of HPE 104A and as such is devoted to optimizing physical fitness and wellness.

1 hour lecture, 2 hours laboratory.

HPE 106A Cross Training Aerobic Exercise (1)

Prerequisite(s): None.

A practical introduction to cross training aerobic exercise with emphasis upon the acquisition of basic skills and movements as well as the improvement and maintenance of individual fitness.

1 hour lecture, 1 hour laboratory.

HPE 109 Latin Dance I (1)

Prerequisite(s): None.

Introduction to the theory and practice of modern Latin dance, with a focus on development of movement and basic Latin dance steps. This course introduces students to five fundamental dance elements, including rhythm, timing, syncopation, form, and interpretation.

1 hour lecture, 1 hour laboratory.

HPE 109A Modern Dance (1)

Prerequisite(s): None.

This course will introduce students to the fundamentals of modern dance and will develop an aesthetic understanding of shape, level and space, muscular strength and coordination, and terminology associated with modern dance. It will also provide an introduction into the historical development of modern dance, an opportunity to create choreography, and the experience of dance as an expressive art form.

1 hour lecture, 1 hour laboratory.

HPE 110A ‡ Body Conditioning (1)

Prerequisite(s): None.

A practical application of the accepted fitness principles and concepts conducive to the development and maintenance of an adequate level of overall fitness. The course introduces the student to aerobic and anaerobic activities that promote cardiovascular endurance, flexibility, and muscular endurance.

1 hour lecture, 1 hour laboratory.

HPE 110B ‡ Body Conditioning - Extended Duration (2)

Prerequisite(s): None.

A practical application of the accepted fitness principles and concepts conducive to the development and maintenance of an adequate level of overall fitness. The course introduces the student to aerobic and anaerobic activities that promote cardiovascular endurance, flexibility, and muscular endurance.

1 hour lecture, 2 hours laboratory.

HPE 111B ‡ Body Dynamics - Extended Duration (2)

Prerequisite(s): None.

A practical introduction to the principles and concepts of physical fitness through the use of various exercise equipment and activities.

1 hour lecture, 2 hours laboratory.

HPE 112A ‡ Weight Training (1)

Prerequisite(s): None.

An activity course introducing basic skills and knowledge necessary to develop a proper weight training program and cardiovascular development.

1 hour lecture, 1 hour laboratory.

HPE 112B ‡ Weight Training - Extended Duration (2)

Prerequisite(s): None.

An activity course introducing basic skills and knowledge necessary to develop a proper weight training program for cardiovascular development.

1 hour lecture, 2 hours laboratory.

HPE 113A Athletic Conditioning I (2)

Prerequisite(s): None.

A practical introduction to fitness activities conducive to the development of strength, flexibility, endurance, and cardiovascular health. Designed to enhance the performance of the first-semester student-athlete.

1 hour lecture, 3 hours laboratory.

HPE 113B Athletic Conditioning II (2)

Prerequisite(s): HPE 113A and acceptance on a college sports team.

A continuation of fitness activities conducive to the development of strength, flexibility, endurance, and cardiovascular health in the second-semester student-athlete.

1 hour lecture, 3 hours laboratory.

HPE 113C Athletic Conditioning III (2)

Prerequisite(s): HPE 113B.

Advanced fitness activities conducive to the continued development of intermediate strength, flexibility, endurance, and cardiovascular health in the third-semester student-athlete.

1 hour lecture, 3 hours laboratory.

HPE 113D Athletic Conditioning IV (2)

Prerequisite(s): HPE 113C.

Advanced fitness activities conducive to the continued development of advanced strength, flexibility, endurance, and cardiovascular health in the fourth-semester student-athlete.

1 hour lecture, 3 hours laboratory.

HPE 115 ‡ Personal Fitness (2)

Prerequisite(s): None.

A practical introduction to the theory and skills of lifetime fitness with emphasis upon aerobic activities to maintain and/or improve the student's cardio-respiratory system and overall fitness level. Student fitness profiles are developed and utilized to determine an individualized exercise program in the exercise physiology lab.

1 hour lecture, 2 hours laboratory.

HPE 116 ‡ Personal Fitness II (1-2)

Prerequisite(s): HPE 115 or permission of instructor.

A continuation of the theory and skills of lifetime fitness introduced in HPE 115 Personal Fitness I. Student fitness profiles are developed and utilized to determine an individualized exercise program in the exercise physiology lab.

HPE 117A ‡ Individualized Fitness (1)

Prerequisite(s): None.

Recommended Preparation: Recent physical examination which identifies any physical activity limitations.

An introduction to the fundamentals of physical fitness with emphasis upon the theoretical principles of wellness and upon those physical activities and behavioral changes necessary to develop and sustain a high level of fitness. Includes the development of an individualized fitness program, involving a variety of physical activities.

1 hour lecture.

HPE 117B ‡ Individualized Fitness (2)

Prerequisite(s): None.

Recommended Preparation: Recent physical examination which identifies any physical activity limitations.

An introduction to the fundamentals of physical fitness with emphasis upon the theoretical principles of wellness and upon those physical activities and behavioral changes necessary to develop and sustain a high level of fitness. Includes the development of an individualized fitness program, involving a variety of physical activities.

1 hour lecture, 3 hours laboratory.

HPE 118B ‡ Indoor Court Sports and Physical Fitness (3)

Prerequisite(s): None.

An introduction to indoor court sports including squash, handball, wallyball, and racquetball. Also presents the information and skills necessary for proper weight training and jogging as they relate to indoor court sports.

3 hours lecture.

HPE 135 ‡ Open Water SCUBA Diver (3)

Prerequisite(s): Intermediate swimming ability.

The Open Water SCUBA Diver course adheres to the guidelines and requirements of PADI's Open Water Diver courses. This course provides the student with the training, knowledge and skills needed to safely experience the underwater environment.

2 hours lecture, 3 hours laboratory.

HPE 145 Beginning Golf (1)

Prerequisite(s): None.

A practical introduction to the basic skills, rules, and etiquette of golf to prepare the student for participation in a lifelong leisure activity.

1 hour lecture, 1 hour laboratory.

HPE 146 Intermediate Golf (1)

Prerequisite(s): HPE 145.

A practical introduction to the advanced skills and strategies of golf with emphasis on the acquisition of a lifelong leisure activity.

1 hour lecture, 1 hour laboratory.

HPE 153 Volleyball (1)

Prerequisite(s): None.

A practical introduction to the basic skills, rules, and strategies of recreational volleyball to prepare the student for participation in a lifelong leisure activity.

1 hour lecture, 1 hour laboratory.

HPE 170A Baseball I (1)

Prerequisite(s): Students must try out for the team.

Designed to allow the first-semester student-athlete to develop and demonstrate the minimum skills and strategies to compete in baseball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 170B Baseball II (1)

Prerequisite(s): HPE 170A and acceptance on the team.

Designed to allow the student-athlete to develop and demonstrate the basic skills and strategies to compete in baseball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 170C Baseball III (1)

Prerequisite(s): HPE 170B.

Designed to allow the more advanced student-athlete to develop and demonstrate the intermediate skills and strategies to compete in baseball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 170D Baseball IV (1)

Prerequisite(s): HPE 170C.

Designed to allow the fourth-semester student-athlete to develop and demonstrate the advanced skills and strategies to compete in baseball at the intercollegiate level. Also provides the opportunity to demonstrate leadership and sportsmanship on and off the field.

1 hour lecture, 3 hours laboratory.

HPE 171A Men's Basketball I (1)

Prerequisite(s): Students must try out for the team.

Designed to allow the first-semester student-athlete to develop and demonstrate the minimum skills and strategies to compete in men's basketball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 171B Men's Basketball II (1)

Prerequisite(s): HPE 171A and acceptance on the team.

Designed to allow the student-athlete to develop and demonstrate the basic skills and strategies to compete in men's basketball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 171C Men's Basketball III (1)

Prerequisite(s): HPE 171B.

Designed to allow the more advanced student-athlete to develop and demonstrate the intermediate skills and strategies to compete in men's basketball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 171D Men's Basketball IV (1)

Prerequisite(s): HPE 171C.

Designed to allow the fourth-semester student-athlete to develop and demonstrate the advanced skills and strategies to compete in men's basketball at the intercollegiate level. Also provides the opportunity to demonstrate leadership and sportsmanship on and off the court.

1 hour lecture, 3 hours laboratory.

HPE 172A Women's Basketball I (1)

Prerequisite(s): Students must try out for the team.

Designed to allow the first-semester student-athlete to develop and demonstrate the minimum skills and strategies to compete in women's basketball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 172B Women's Basketball II (1)

Prerequisite(s): HPE 172A and acceptance on the team.

Designed to allow the student-athlete to develop and demonstrate the basic skills and strategies to compete in women's basketball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 172C Women's Basketball III (1)

Prerequisite(s): HPE 172B.

Designed to allow the more advanced student-athlete to develop and demonstrate the intermediate skills and strategies to compete in women's basketball at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 172D Women's Basketball IV (1)

Prerequisite(s): HPE 172C.

Designed to allow the fourth-semester student-athlete to develop and demonstrate the advanced skills and strategies to compete in women's basketball at the intercollegiate level. Also provides the opportunity to demonstrate leadership and sportsmanship on and off the court.

1 hour lecture, 3 hours laboratory.

HPE 174A Women's Soccer I (1)

Prerequisite(s): Students must try out for the team.

Designed to allow the first-semester student-athlete to develop and demonstrate the minimum skills and strategies to compete in women's soccer at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 174B Women's Soccer II (1)

Prerequisite(s): HPE 174A and acceptance on the team.

Designed to allow the student-athlete to develop and demonstrate the basic skills and strategies to compete in women's soccer at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 174C Women's Soccer III (1)

Prerequisite(s): HPE 174B.

Designed to allow the more advanced student-athlete to develop and demonstrate the intermediate skills and strategies to compete in women's soccer at the intercollegiate level.

1 hour lecture, 3 hours laboratory.

HPE 174D Women's Soccer IV (1)

Prerequisite(s): HPE 174C.

Designed to allow the fourth-semester student-athlete to develop and demonstrate the advanced skills and strategies to compete in women's soccer at the intercollegiate level. Also provides the opportunity to demonstrate leadership and sportsmanship on and off the field.

1 hour lecture, 3 hours laboratory.

HPE 179 Lifelong Wellness (3)

Prerequisite(s): None.

An introduction to nutrition, stress management, fitness regimens, and other practices as they relate to wellness and optimum health. Under faculty supervision, students develop an individualized program of diet and exercise.

3 hours lecture.

HPE 193 Theory of Coaching Baseball (3)

Prerequisite(s): None.

An overview of coaching skills and theory with emphasis upon coaching baseball at the youth and secondary levels. Introduces the student to the aspects of coaching baseball at the collegiate level.

3 hours lecture.

HPE 194 Theory of Coaching Basketball (3)

Prerequisite(s): None.

A theoretical and practical study of coaching with emphasis upon coaching basketball at the youth and secondary levels. Introduces the student to the aspects of coaching basketball at the collegiate level.

3 hours lecture.

HPE 197 Care and Prevention of Athletic Injuries (3)

Prerequisite(s): None.

A theoretical and practical study of common athletic injuries including appraisal, treatment, prevention, psychological implications, and legal issues.

3 hours lecture.

HUM - HUMANITIES

HUM 101 * Humanities in Contemporary Life (3)

Prerequisite(s): ENG 100 or placement in ENG 101.

A study of contemporary thought, literature, art, and music as they occur in the mass media: print, motion pictures, television, and the Internet.

3 hours lecture.

HUM 110 * Introduction to Film (3)

Prerequisite(s): None.

A study of film as an art form and medium for the expression of ideas, and an introduction to the principles of film criticism.

3 hours lecture.

HUM 115 * Cultural Heritage of the Southwest (3)

Prerequisite(s): ENG 101 or permission of instructor.

A general survey of the cultural heritage of the Southwest. A cultural look at the significant events, historical figures, customs, ways and institutions that have contributed to the unique cultural heritage in the Southwest.

3 hours lecture.

HUM 116 * Middle Eastern Humanities (3)

Prerequisite(s): ENG 101 or permission of instructor.

A study of the art, religion, literature, music, philosophy, and cultural traditions of the Middle Eastern world.

3 hours lecture.

HUM 200 * Film History (3)

Prerequisite(s): ENG 101 and ENG 102.

Recommended Preparation: HUM 110.

Survey of film history focusing on the development of important themes, movements, and techniques in international narrative films.

3 hours lecture.

HUM 205 * Cultural Studies through the Humanities I (3)

Prerequisite(s): ENG 102 or permission of instructor.

Art, architecture, and ideas from ancient times through the Renaissance.

3 hours lecture.

HUM 206 * Cultural Studies through the Humanities II (3)

Prerequisite(s): ENG 102 or permission of instructor.

Art, architecture, and ideas from the Reformation to the present.

3 hours lecture.

HUM 210 * Foreign Film Classics (3)

Prerequisite(s): ENG 101 or permission of instructor.

A survey of major foreign films from 1893 through the present, emphasizing film criticism and theory.

3 hours lecture.

IOS - INTELLIGENCE OPERATIONS STUDIES

IOS 100 * Introduction to Intelligence Operations Studies (3)

Prerequisite(s): None.

Introduces students to the basic elements of intelligence: collection, analysis, dissemination, counterintelligence, and covert action. Examines the difference between intelligence and information. Details the structure, functions, capabilities, and contributions of the national intelligence community, including Congress, the military, joint and unified commands, and law enforcement agencies. Students will study the various steps of the intelligence cycle and learn their purposes.

3 hours lecture.

IOS 101 Counterintelligence Investigations (3)

Prerequisite(s): None.

Introduces students to the principles, objectives, procedures, and reports used to conduct counterintelligence investigations within various investigational contexts. This process includes the planning, communicating, operating, credentialing, and investigating processes associated with counterintelligence investigations.

3 hours lecture.

IOS 102 * Security Programs (3)

Prerequisite(s): None.

Introduces students to the principles, objectives, and basic procedures used to develop, account for, control, protect, and arrange for the eventual destruction of sensitive information and material. Helps equip students for the investigation of security crimes and the protection of classified information and material in the custody of counterintelligence agents.

3 hours lecture.

IOS 103 Intelligence Law and Administration of Justice (1)

Prerequisite(s): None.

Introduces students to the legal principles of intelligence law as those principles apply to counterintelligence investigations and operations. Prepares students to use the principles of intelligence law and the administration of justice in the performance of their duties as counterintelligence agents.

1 hour lecture.

IOS 104 * Analytical Process and Product (3)

Prerequisite(s): None.

Introduces students to the three analytical processes in the intelligence cycle: intelligence preparation of the battlefield, intelligence surveillance and reconnaissance, and targeting. Students learn to leverage analytical products associated with these processes such as PMESII, ASCOPE, Link-Pattern-Nodal analysis, threat characteristics, threat objectives, threat templates, the oil spot, and the situation template.

3 hours lecture.

IOS 105 Interrogation Operations (3)

Prerequisite(s): None.

Introduces students to the basic skills and knowledge to support the collection, dissemination, and protection of intelligence information during human intelligence operations. Using conventional and unconventional sources, students perform as members of an interrogation team during simulated operations at both tactical and strategic levels.

3 hours lecture.

IOS 106 Map Reading and Analysis (3)

Prerequisite(s): None.

A study of map reading and analysis including marginal data, identification of terrain features, and calculation of azimuths. Provides students with analytical skills essential to information gathering, collection capabilities, and interpretation of assets.

3 hours lecture.

IOS 107 International Morse Code (3)

Prerequisite(s): None.

A study of the International Morse Code and its process of transmission, including required formats used in a computer-based system to record, forward, and store the code. The course prepares students to format and copy International Morse Code letters, numbers, and special characters.

3 hours lecture.

IOS 108 Signal Theory (3)

Prerequisite(s): None.

A study of the basic skills to intercept, analyze, and report non-communication signals. Includes the handling of classified material. Focus is on signal and wavelength theory, radar theory, electronic intelligence parameters, and basic collection operations. Students learn about worldwide non-communications threats to include weapons systems operations, message information extraction, opposing forces operations, and situation analysis.

3 hours lecture.

IOS 109 Signal Analysis and Security (3)

Prerequisite(s): None.

Trains students to operate the All Source Analysis System-Single Source Enclave (ASAS-SSE) software, to display automated situation map updates, and to operate electronic messaging as analysis control element team members.

3 hours lecture.

IOS 110 Remote Sensing (3)

Prerequisite(s): None.

Trains students to analyze hardcopy and softcopy imagery collected from the electronic magnetic spectrum. Students use intelligence databases as well as automated processing and dissemination systems to provide valid, accurate, and timely intelligence to appropriate agencies.

3 hours lecture.

IOS 111 Information Security for Intelligence Operations (1)

Prerequisite(s): None.

A brief overview of information security as it applies to intelligence operations in the military (INFOSEC). Topics include safekeeping and storage of classified materials, application of classification markings to appropriate documents, and proper destruction of classified materials.

1 hour lecture.

IOS 112 Imagery Analysis Techniques (3)

Prerequisite(s): None.

Develops the basic skills to successfully employ and analyze imagery in an operational environment. Introduces students to basic analytical techniques, sensor capabilities and limitations, characteristics of observed operational activity, spectral and stereoscopic imagery, and full motion video.

3 hours lecture.

IOS 113 * Terrorism and Counterterrorism (3)

Prerequisite(s): None.

Recommended Preparation: ENG 101.

An examination of the history of terrorism and the tactics and technologies used by terrorist groups. Examines the nature of the terrorist threat and countermeasures to combat terrorism. Identical to AJS 113.

3 hours lecture.

IOS 114 Reporting of Intelligence Data (3)

Prerequisite(s): None.

Identification of the essential elements of information, selection of reporting vehicle, and production of concise and timely technical summaries.

3 hours lecture.

IOS 115 Briefing Skills (1-4)

Prerequisite(s): None.

Training in the skills required to perform the duties and operations necessary to conduct briefings in the intelligence operations field. May be taken four times for a total of four credits.

IOS 116 Imagery Identification (6)

Prerequisite(s): None.

Students will be trained in the identification from aerial images of threat and operational equipment including naval vessels; fixed, swing, and rotary wing aircraft; engineer and decontamination equipment; truck models and functions; armored personnel carriers (APCs); missiles, rockets, and launch sites; communication and radar sites; artillery and artillery related equipment; and tanks and armored recovery vehicles (ARVs). In addition, students will learn to identify from aerial imagery organizations and activity in relation to the Ground Order of Battle (GOB).

6 hours lecture.

IOS 117 Symbology (3)

Prerequisite(s): None.

Trains students in the skills necessary to translate incoming message traffic into military symbols.

3 hours lecture.

IOS 118 * Intelligence Preparation of the Battlefield (3)

Prerequisite(s): None.

Teaches students to identify characteristics of the modern battlefield and to analyze how the operational environment of the battlefield can affect friendly and threat operations. Students define the operational environment, consider the effects of weather and terrain, evaluate threat, and determine potential threat courses of action.

3 hours lecture.

IOS 119 Introduction to Communications for Intelligence Operations (3)

Prerequisite(s): None.

Study and practice in basic oral communication in English for non-native speakers. Includes the fundamentals of oral communications in interpersonal, small-group, and large-group situations in the field of intelligence operations.

2 hours lecture, 2 hours laboratory.

IOS 120 Records Management (3)

Prerequisite(s): CIS 116.

Introduces students to the procedures, regulations, and forms used to accurately account for and manage an organization's records and funds. Students will learn these skills as custodians in a simulated large agency operating environment.

3 hours lecture.

IOS 121 Counterintelligence Investigations II (3)

Prerequisite(s): None.

A course in the collection, evaluation, and use of information to produce justifiable conclusions in support of the counterintelligence mission.

3 hours lecture.

IOS 122 * Intelligence, Surveillance, and Reconnaissance (ISR) (3)

Prerequisite(s): None.

Teaches students the Intelligence, Surveillance, and Reconnaissance (ISR) process across the scope of military operations from Joint Task Force level to Battalion level. Students learn the functions of the ISR process and its relationship to decision making. Students are taught how to develop an ISR plan, disseminate the information, evaluate the reporting, and update the plan.

3 hours lecture.

IOS 123 Targeting (3)

Prerequisite(s): None.

Teaches students the targeting process across the scope of intelligence operations. Students are introduced to the decide, detect, deliver, and assess (D3A) methodology of targeting. Students learn the functions associated with the D3A methodology and how these functions interact with the decision-making process.

3 hours lecture.

IOS 124 Cellular Communication Fundamentals (3)

Prerequisite(s): None.

Trains students in cellular technologies used around the world to deploy enhanced wireless capabilities. Covers the evolution of cellular capabilities to current protocols and standards. Provides a comprehensive overview of the options available in handling voice and data transmitted through wireless technologies. Explores variations among Frequency Division Multiple Access (FDMA), Time Division Multiple Access (TDMA), Code Division Multiple Access (CDMA), and Global System for Mobile communications (GSM).

3 hours lecture.

IOS 131 Personal Identification Methods in Battlefield Forensics (2)

Prerequisite(s): None.

An introduction to the methods used to identify individuals based on evidence collected at an incident scene in a battlefield environment. Emphasis is on the identification, collection, and preservation of biological evidence for criminal investigations and legal procedures. Topics include fingerprints, facial recognition, bloodstain analysis, and biometrics.

1 hour lecture, 3 hours laboratory.

IOS 141 Battlefield Forensic Investigations I (4)

Prerequisite(s): None.

A study in battlefield forensic investigation procedures and techniques. Emphasis is on incident scene management; and on the identification, collection, and preservation of material evidence related to the manufacture and use of improvised explosive devices (IEDs).

3 hours lecture, 3 hours laboratory.

IOS 142 Battlefield Forensic Investigations II (4)

Prerequisite(s): IOS 141.

An in-depth study of the technical aspects of the collection and preservation of physical evidence from a battlefield environment. Emphasis is on the processes involved in identifying persons assembling improvised explosive devices (IEDs), and on the tactics and techniques used in the employment of those devices.

3 hours lecture, 3 hours laboratory.

IOS 201 Collection Operations (3)

Prerequisite(s): IOS 101 or permission of instructor.

Trains students in source collection operations in the operational cycle. Includes collection planning, identifying, assessing, recruiting, training, tasking, interviewing, and providing source operations support.

3 hours lecture.

IOS 202 Force Protection Operations and Support (3)

Prerequisite(s): IOS 101, IOS 102, IOS 103, or permission of instructor.

Teaches students how to assimilate, analyze, and distribute multidiscipline counterintelligence products in support of tactical force protection. Areas covered include counterintelligence operations in a deployed environment and current threat assessment technology.

3 hours lecture.

IOS 203 * Combating Terrorism (3)

Prerequisite(s): IOS 101, IOS 102, IOS 103, or permission of instructor.

Familiarizes students with the history and development of terrorism. Trains students to recognize the phases of a terrorist incident and to understand a terrorist group's structure, degree of support, and scope of operations. Teaches students to use the basic analytical tools available to combat terrorism.

3 hours lecture.

IOS 204 Interrogation and Interviewing Techniques (3)

Prerequisite(s): IOS 104, IOS 105, or permission of instructor.

Teaches students how to prepare for and question a source, collect all information of intelligence value, and report this information in the proper format. Training includes appropriate approach and questioning techniques, effective listening and note-taking methods, source screening procedures, and proper exploitation phases to collect intelligence information.

3 hours lecture.

IOS 209 Automated Intelligence Systems (4)

Prerequisite(s): CIS 116.

Covers the use of automated intelligence systems in the field of intelligence operations. Students learn basic system operations and conventions.

4 hours lecture.

IOS 210 Intermediate Remote Sensing (3)

Prerequisite(s): IOS 110.

An intermediate course which builds on the topics presented in IOS 110. Students apply their knowledge of intelligence operations, and they use observed activity in the analysis of hardcopy and softcopy imagery. They query imagery databases to provide organizations with accurate and timely reports, intelligence briefs, and assessments based on given scenarios and Priority Intelligence Requirements (PIRs).

3 hours lecture.

IOS 211 * Military Decision Making (1-3)

Prerequisite(s): None.

A practical study of mission analysis and the military decision-making process. Includes a review of situation analysis, problem analysis, and decision analysis; and a review of the relationship between the decision maker and the decision environment. May be taken three times for a total of three credits.

IOS 212 Intermediate Imagery Analysis Techniques (3)

Prerequisites(s): IOS 112.

This course builds on the fundamentals taught in IOS 112. Students develop their ability to apply photogrammetry techniques, equipment identification techniques, and softcopy and hardcopy imagery manipulation techniques to produce accurate imagery analyses and activity assessments.

3 hours lecture.

IOS 214 Reporting of Intelligence Data II (3)

Prerequisite(s): ENG 102.

A course in the preparation of intelligence reports using pertinent information to satisfy the appropriate requirements.

3 hours lecture.

IOS 215 Briefing Skills II (1-3)

Prerequisite(s): None.

Recommended Preparation: IOS 115.

An advanced course in the preparation and delivery of briefings in the intelligence operations field. May be taken three times for a total of three credits.

IOS 220 Reporting of Intelligence Data III (3)

Prerequisite(s): ENG 102.

Recommended Preparation: IOS 114.

A tactical human intelligence (HUMINT) course designed for the advanced intelligence operations practitioner maintaining a HUMINT-specific occupational specialty. It enhances the student's ability to plan and prepare timely and effective intelligence reports in both urban and rural environments.

3 hours lecture.

IOS 221 Counterintelligence Investigations III (3)

Prerequisite(s): ENG 101.

Recommended Preparation: IOS 101.

An advanced course that trains students to understand the objectives, apply the procedures, and produce the reports used in advanced counterintelligence investigations. Students will expand their knowledge and abilities in the planning, communicating, operating, credentialing, and investigating processes related to advanced counterintelligence investigations. This course is designed for the tactical human intelligence (HUMINT) practitioner.

3 hours lecture.

IOS 223 Intelligence Law and Administration of Justice II (1)

Prerequisite(s): None.

Recommended Preparation: IOS 103.

An advanced course in the legal principles and regulations of intelligence law as they apply to counterintelligence investigations and operations. Prepares students to apply the principles of intelligence law and of the administration of justice in the performance of their duties as tactical human intelligence (HUMINT) practitioners.

1 hour lecture.

IOS 224 Force Protection Operations and Support II (3)

Prerequisite(s): None.

Recommended Preparation: IOS 202.

A tactical course designed to improve the human intelligence (HUMINT) practitioner's ability to assimilate, analyze, and distribute multidiscipline human products in support of tactical force protection operations. Focus is on human intelligence operations in a tactically deployed environment.

3 hours lecture.

IOS 225 Analytical Process and Product II (3)

Prerequisite(s): None.

Recommended Preparation: IOS 104.

A tactical human intelligence (HUMINT) course designed to improve students' ability to prepare analytical tools to assess a combat environment. Students must have a good understanding of conventional and unconventional threat forces, various types of organizations, and associated weapons and equipment, as well as a

working knowledge of the tactics, techniques, and procedures of groups or forces identified as posing a threat to U.S. interests.

3 hours lecture.

IOS 226 Interrogation and Interviewing Techniques II (3)

Prerequisite(s): None.

Recommended Preparation: IOS 204.

An advanced tactical human intelligence (HUMINT) course that further trains students to prepare for questioning and to question a human intelligence source, and to collect and report information that is of intelligence value.

3 hours lecture.

IOS 241 Management of Intelligence and Counterintelligence Operations I (4)

Prerequisite(s): IOS 211.

A study of the organizational management of intelligence and counterintelligence operations. Topics include the theoretical and practical perspectives of managing increasing levels of responsibility, with emphasis on problem-solving and decision-making processes and on the role of the leader.

3 hours lecture, 3 hours laboratory.

IOS 242 Management of Intelligence and Counterintelligence Operations II (4)

Prerequisite(s): IOS 241.

An in-depth study of the managerial challenges related to the multidiscipline roles in intelligence and counterintelligence operations. Emphasis is on the assessment of external and internal environments, strategic initiatives, and communication techniques, and on the allocation and coordination of personnel and resources.

3 hours lecture, 3 hours laboratory.

JRN - Journalism

JRN 101 Introduction to Mass Communications (3)

Prerequisite(s): ENG 101 or permission of instructor.

An introduction to mass communications media with emphasis on understanding basic concepts of gathering, writing, and evaluating news and other kinds of communication in newspapers, television, radio, magazines, wire services, books, movies, computer/digital and other media.

3 hours lecture.

JRN 102 (SUN# JRN 2201) Essentials of News Writing (3)

Prerequisite(s): ENG 101 or concurrent enrollment, and CIS 116 or concurrent enrollment.

Entry-level course in media arts/communications or journalism. Students will be introduced to news values, interviewing techniques, basic newspaper writing formats, and legal and ethical concerns of media professionals.

3 hours lecture.

JRN 201 Essentials of Newspaper Publishing (3)

Prerequisite(s): JRN 102 and CIS 116, or permission of instructor.

Introduces students to the publication of a college newspaper, with focus on newsworthiness and appropriateness, news gathering, news and editorial writing, headline writing, editing, page design, photography, and other publishing activities. Newsroom management and ethical and legal considerations are also covered.

2 hours lecture, 3 hours laboratory.

JRN 224 Field Experience in Communication and/or Media Technology (1-6)

Prerequisite(s): Permission and approval of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career objectives in communication and media technology and related fields.

JRN 257 Literary Magazine Production (3)

Prerequisite(s): ENG 101 or permission of instructor.

Production of the college literary and arts magazine. Includes application of promotion, editing, design, layout, and production techniques. Identical to ENG 257.

3 hours lecture.

LGS - Logistics

LGS 101 Principles of Logistics (3)

Prerequisite(s): None.

An introduction to the field of logistics including the development of logistics systems, careers in logistics, distribution planning, supply chain security, and customer service. Also deals with the roles and functions of purchasing, inventory control, physical distribution, warehousing, transportation methods, packaging, and customs.

3 hours lecture.

LGS 102 Inventory Control (3)

Prerequisite(s): None.

A study of inventory-control concepts and techniques. Includes examining cost concepts, determining nature and size of inventory, forecasting, and planning and controlling inventory. Also includes ordering methods, pilferage control, and customer satisfaction strategies.

3 hours lecture.

LGS 103 Freight Claims and Contracts (3)

Prerequisite(s): None.

A study of the mitigation of losses in transit and of the various aspects of negotiating and drafting freight and logistics contracts. Includes claim preparation, filing procedures, and claim dispute resolution. Also includes legal and regulatory requirements applicable to product transportation contracts, and considerations for drafting and negotiating contracts with freight carriers, warehousemen, and other logistics-service providers.

3 hours lecture.

LGS 104 Computerized Logistics (2)

Prerequisite(s): None.

An analysis of the use of computers in the logistics industry, and an introduction to available logistics software. Discusses why computers are needed, their history and possible future uses in the

logistics industry, and their impact on customer service. Also includes logistics software availability, selection, and implementation; and computer security measures.

2 hours lecture.

LGS 105 Warehouse Management (3)

Prerequisite(s): None.

A study of the managing of warehouses. Includes analysis of warehouse location and operations, controls and procedures, finances, security, cargo and materials handling, and productivity.

3 hours lecture.

LGS 106 Transportation and Traffic Management (3)

Prerequisite(s): None.

A study of the domestic freight transportation system. Addresses patterns of freight movement, and laws, regulations, pricing, and policies of freight transportation. Examines issues related to traffic management, security, and international transportation.

3 hours lecture.

LGS 107 Introduction to Purchasing (3)

Prerequisite(s): None.

A study of the basic purchasing functions: establishing inventory requirements and quantities, developing policies and procedures for purchasing, making purchasing decisions, receiving goods, arranging packaging and shipping, and managing inventory levels.

3 hours lecture.

LGS 108 International Logistics (3)

Prerequisite(s): None.

An introduction to the role of logistics in global business. Examines international logistics as they apply to processes, terms, and transportation networks. Addresses the role of governments and intermediaries in the preparation of international transportation documents. Also reviews the fundamentals of effective import and export management.

3 hours lecture.

LGS 109 * Readiness Skills for Logistics Careers (1)

Prerequisite(s): None.

Facilitates the development of learning objectives and career goals in the field of logistics. Explores skills required in logistics careers. Reviews common job requirements, strategies for employment success, and the role of lifelong learning in career advancement.

1 hour lecture.

LGS 224 Field Experience in Logistics (1-6)

Prerequisite(s): A declared major in logistics and permission and approval of the cooperative education program coordinator.

Recommended Preparation: Appropriate faculty member recommendation.

Supervised cooperative education work experience in logistics and related fields.

MAT - Mathematics

Developmental mathematics at Cochise College is delivered in a fifteen-module format. These modules teach the outcomes of the developmental math sequence, mastery of which is essential for success in certain college-level courses and programs. Students are allowed to progress at their own pace provided they meet the minimum course requirements. They may progress beyond those requirements in each course.

Developmental Mathematics Level I (MAT 071) is the first of three courses in the developmental math sequence. All students who score below college level on the placement exam must enroll in MAT 071. Completion of modules 1 through 5 is the minimum course requirement.

Developmental Mathematics Level II (MAT 081) is the second of three courses in the developmental math sequence. Students who complete MAT 071 with a grade of C or better may enroll in MAT 081. Completion of modules 6 through 10 is the minimum course requirement.

Developmental Mathematics Level III (MAT 123) is the third of three courses in the developmental math sequence. Students who complete MAT 081 with a grade of C or better may enroll in MAT 123. Completion of modules 11 through 15 is the minimum course requirement. Completion of all fifteen modules will be considered equivalent to a traditional Intermediate Algebra (MAT 122) course.

MAT 071 * Developmental Mathematics Level I (4)

Prerequisite(s): None.

A study of basic arithmetic skills and techniques of computation. Includes fundamental operations with whole numbers, integer exponents, fractions, mixed numbers, decimals, prime numbers, square roots, percent and percent applications, systems of measurement, and geometry. Requires completion of modules 1 through 5.

4 hours lecture.

MAT 081 * Developmental Mathematics Level II (4)

Prerequisite(s): MAT 071.

An introduction to the basic algebra normally covered in high school Algebra I. Includes fundamental properties and operations of real numbers, algebraic expressions, linear equations and inequalities, literal formulas and equations, graphing of linear functions and inequalities, properties of exponents, polynomial operations and factoring, and quadratic equations. Requires completion of modules 6 through 10.

4 hours lecture.

MAT 082 * Elementary Algebra (3)

Prerequisite(s): Appropriate placement test score or MAT 071.

An introduction to the basic algebra normally included in a first-year high school algebra course. Includes fundamental axioms and operations applied to rational numbers, laws of integral exponents, solutions of equations, polynomials and factoring, systems of equations, graphing equations and inequalities, rational expressions, radicals, quadratic equations and applications.

3 hours lecture.

MAT 092 Special Topics and Applications in Developmental Mathematics (0.25-4)

Prerequisite(s): For MAT 092 in conjunction with an existing course, concurrent enrollment in the existing course is required.

A rotating forum/seminar/course or supplement to an existing mathematics course emphasizing mathematics or related topics. The title and credit hours for this course will vary each term depending on the topic.

MAT 122 * Intermediate Algebra (3)

Prerequisite(s): MAT 081.

A continuation of algebra concepts which parallels the content generally included in a second-year high school algebra course: real number system, linear equations, absolute value equations and inequalities, functions, basic analytical geometry, systems of equations, polynomials, exponents, radicals, and quadratic equations. May or may not transfer to four-year universities.

3 hours lecture.

MAT 123 * Developmental Mathematics Level III (4)

Prerequisite(s): MAT 081.

A continuation of algebra concepts equivalent to the content normally covered in high school Algebra II. Includes rational expressions, functions, basic analytical geometry, systems of equations, polynomials, exponents, radicals, and quadratic equations. Requires completion of modules 11 through 15. May or may not transfer to four-year universities.

4 hours lecture.

MAT 132 Applied Mathematics (3)

Prerequisite(s): Appropriate placement test score or MAT 081.

A survey of mathematical concepts including numeric and fundamental algebraic operations, measurement, geometric figures, right-triangle trigonometry, and statistical measures of center. Focus is on solving technology-related problems.

3 hours lecture.

MAT 142 Survey of College Mathematics (3)

Prerequisite(s): Appropriate placement test score, MAT 122, or MAT 123.

Gives students not continuing in mathematics experience in applying mathematical concepts to realistic situations. Topics include problem solving, mathematical modeling, exponential growth, probability, statistics, and finance mathematics.

3 hours lecture.

MAT 151 * (SUN# MAT 1151) College Algebra (4)

Prerequisite(s): Appropriate placement test score, MAT 122, or MAT 123.

An in-depth study of basic algebra concepts for those intending to further their mathematics studies. Includes linear and quadratic equations, inequalities, functions, graphing, and the more advanced topics of logarithms and matrices.

4 hours lecture.

MAT 154 * Mathematics for Elementary Education Majors I (3)

Prerequisite(s): MAT 142 or MAT 151.

Designed to deepen understanding of some of the mathematical concepts taught in elementary and middle schools. Topics include numeration systems, sets and functions, reasoning, number theory, and operations on whole numbers, integers, and rational numbers.

3 hours lecture.

MAT 156 * Mathematics for Elementary Education Majors II (3)

Prerequisite(s): MAT 142 or MAT 151.

Designed to deepen understanding of some of the mathematical concepts that are taught in elementary and middle schools. Topics include probability, statistics, geometry, graphing, and problem solving.

3 hours lecture.

MAT 167 * (SUN# MAT 1160) Elements of Statistics (3)

Prerequisite(s): MAT 142, MAT 151, or MAT 187.

Basic concepts of descriptive and inferential statistics with applications in business, economics, the natural sciences, and the social and behavioral sciences. Topics include methods of data collection, sampling techniques, probability distributions, confidence intervals, hypothesis testing, regression and correlation, and various parametric and non-parametric statistical tests.

3 hours lecture.

MAT 182 * Plane Trigonometry (3)

Prerequisite(s): MAT 151.

An analytical approach to trigonometry based upon the unit circle concept. Topics include trigonometric functions, identities, conditional equations, radian measure graphs, right and oblique triangles, inverse trigonometric functions, and the trigonometric form of complex numbers.

3 hours lecture.

MAT 187 * (SUN# MAT 1187) Precalculus (5)

Prerequisite(s): Appropriate placement test score, MAT 122, or MAT 123.

Recommended Preparation: Some knowledge of college algebra and/or trigonometry.

A combination of college-level algebra and trigonometry. Algebra topics include analysis of graphs, asymptotic behavior, symmetry, inequalities, analysis of polynomials, the rational root theorem, and logarithmic and exponential functions with applications. Trigonometry topics include the trigonometric functions, inverse functions, identities, formulas, and angle measures.

5 hours lecture.

MAT 192 Special Topics and Applications in College Mathematics (0.25-6)

Prerequisite(s): For MAT 192 in conjunction with an existing course, concurrent enrollment in the existing course is required.

Recommended Preparation: For MAT 192 offered as a special topic seminar or course, permission of the instructor is strongly recommended.

A rotating forum/seminar/course or supplement to an existing mathematics course emphasizing mathematics or related topics. The title and credit hours for this course will differ each term, depending on the topic being covered when the course is offered.

MAT 212 * Calculus for Business (3)

Prerequisite(s): Appropriate placement test score, MAT 151, or

MAT 187.

Recommended Preparation: One of the prerequisite courses taken within the last twelve months.

A brief introduction to calculus with emphasis on business applications. Topics include analytic geometry, limits, derivatives, and definite and indefinite integrals.

3 hours lecture.

MAT 220 * (SUN# MAT 2220) Calculus I (5)

Prerequisite(s): Appropriate placement test score, MAT 187, or both MAT 151 and MAT 182.

An integrated study using analytic geometry to develop and apply calculus concepts, including techniques and applications of differentiation and integration of elementary functions. Additional topics are absolute value and inequality, relations and functions, graphs, limits and continuity, and definition and application of the derivative, anti-derivative, and definite integral.

5 hours lecture.

MAT 227 (SUN# MAT 2227) Discrete Mathematics (3)

Prerequisite(s): MAT 151 or MAT 187.

Recommended Preparation: MAT 220.

An introduction to the study of non-continuous mathematics. Topics include formal proof techniques, propositional logic, set theory, combinatorics, elementary number theory, graph theory, and partially ordered sets.

3 hours lecture.

MAT 231 (SUN# MAT 2230) Calculus II (4)

Prerequisite(s): MAT 220.

A continuation of MAT 220 expanding to include transcendental, inverse trigonometric, and hyperbolic functions. Additional topics are indeterminate forms, improper integrals, sequences and infinite series, conic sections, parametric equations, and polar coordinates.

4 hours lecture.

MAT 241 (SUN# MAT 2241) Calculus III (4)

Prerequisite(s): MAT 231.

A continuation of MAT 231 focusing on the calculus of multivariate functions including limits, derivatives, and integrals. Also introduces vector analysis, including Green's and Stokes' theorems.

4 hours lecture.

MAT 252 Introduction to Linear Algebra (3)

Prerequisite(s): MAT 231.

A study of the properties of vector spaces. Topics are introduced in the context of real valued matrices and then generalized to more abstract spaces. Basic arithmetic of matrices is reviewed and then extended to cover linear transformations, eigenvalues, eigenvectors, and applications.

3 hours lecture.

MAT 262 (SUN# MAT 2262) Differential Equations (3)

Prerequisite(s): MAT 231.

An introduction to the study of ordinary differential equations. Topics include the theory, methods of solution, and applications of the following: first-order differential equations, nth-order linear differential equations, systems of linear differential equations, and series solutions.

3 hours lecture.

MCS - MECHATRONICS

MCS 101 Mechatronic Systems Electrical Components (4)

Prerequisite(s): None.

Introduces the systems approach to the operation of electrical components, and to the relationship of voltage, current, resistance, and power in industrial systems; and provides an overview of alternating current and direct current fundamentals.

3 hours lecture, 3 hours laboratory.

MCS 102 Introduction to Programmable Logic Controllers (4)

Prerequisite(s): None.

An introduction to the fundamentals of digital logic and to programmable logic controllers (PLCs) in a complex mechatronics system, with a focus on automation systems. Using computer simulations, students explore the role PLCs play within a mechatronics system and its subsystems, and demonstrate PLC functions by writing and testing basic programs on an actual system. They also apply troubleshooting strategies to identify malfunctioning PLCs and to localize problems caused by PLC hardware.

3 hours lecture, 3 hours laboratory.

MCS 103 Mechatronic Systems Mechanical Components (4)

Prerequisite(s): None.

Introduces the systems approach to the operation of mechanical components and the application of those components in industrial systems, and provides an overview of rotating machinery fundamentals.

3 hours lecture, 3 hours laboratory.

MCS 104 (Electro)Pneumatic and Hydraulic Control Circuits (4)

Prerequisite(s): None.

An introduction to the basics of pneumatic, (electro)pneumatic, and hydraulic control circuits in a complex mechatronics system. Students investigate the physical functions and properties of control elements and the role that these functions and properties play within the system. They also utilize technical documents such as data sheets, circuit diagrams, displacement step diagrams, and function charts to identify, localize, and correct malfunctions in (electro)pneumatic and hydraulic circuits; and they perform preventive maintenance on system (electro)pneumatic and hydraulic components.

3 hours lecture, 3 hours laboratory.

MUS - MUSIC

MUS 100 * Fundamentals of Music Notation (3)

Prerequisite(s): None.

An introduction to the fundamentals of music notation including pitch, rhythm, meter, scales, and intervals. Also introduces basic harmonic structures and the elements of composition. Students use music software to create original musical pieces.

3 hours lecture.

MUS 101 Introduction to Music (3)

Prerequisite(s): None.

An introduction to the elements of music, illustrated with important musical literature from various periods of music history. Covers music from the Middle Ages and the Renaissance, as well as the Baroque, Classical, Romantic, and Twentieth-Century periods.

3 hours lecture.

MUS 103 Voice Class Instruction (1)

Prerequisite(s): None.

The study of basic foundations of vocal techniques, i.e., breath control, tonal support, tone production, vocal projection and diction.

1 hour lecture.

MUS 109 ‡ Orchestra (1)

Prerequisite(s): Permission of instructor.

Study and performance of orchestral musical literature from various periods of musical composition.

2 hours rehearsal/performance.

MUS 110 ‡ Chorus (1)

Prerequisite(s): Audition.

Recommended Preparation: Previous choral experience.

The study and performance of choral literature from various musical periods. Emphasis is on vocal and choral techniques, which are applied through the rehearsal of repertoire. Includes public performances at college and community events.

3 hours rehearsal/performance.

MUS 111 ‡ Band (1)

Prerequisite(s): Audition.

Study and performance of instrumental music from various periods of musical composition.

2 hours rehearsal/performance.

MUS 112 ‡ Instrumental Class Instruction (1)

Prerequisite(s): None.

An introduction to and development of basic instrumental skills, note reading, coordination, rhythm, and sight reading.

1 hour lecture.

MUS 112A Piano Class Instruction

MUS 112E String Class Instruction

MUS 113 ‡ Instrument - Individual Instruction (1-2)

Prerequisite(s): Audition or permission of instructor.

A systematic study of technique and repertoire on an instrument of the student's choice. May be taken twice for a total of two credits.

MUS 113A Individual Instruction - Piano

MUS 113B Individual Instruction - Brass

MUS 113C Individual Instruction - Woodwind

MUS 113D Individual Instruction - Percussion

MUS 113E Individual Instruction - Strings

MUS 113F Individual Instruction - Guitar

MUS 115 ‡ Voice - Individual Instruction (1-2)

Prerequisite(s): Audition or permission of instructor.

A study of the basics of vocal technique and a preparation for the performance of pieces in the vocal literature. May be taken twice for a total of two credits.

MUS 123 American Popular Music (3)

Prerequisite(s): None.

This course is an introduction to elements, forms, and uses of popular music beginning with the early 20th Century in America. Course content is illustrated by recordings and videos of influential performers and composers, with an emphasis on the music industry within the context of popular culture.

3 hours lecture.

MUS 132 * Music Theory I (3)

Prerequisite(s): MUS 100 or permission of instructor, and concurrent enrollment in MUS 134.

Recommended Preparation: In addition, music majors should enroll in either MUS 113 or MUS 115.

This first course in music theory is a study of the construction and of the analysis of music including scales, intervals, transposition, figured bass symbols, cadences, non-harmonic tones, and melodic organization.

3 hours lecture.

MUS 133 * Music Theory II (3)

Prerequisite(s): MUS 132 and MUS 134, or permission of instructor; and concurrent enrollment in MUS 135.

Recommended Preparation: In addition, music majors should enroll in either MUS 113 or MUS 115.

This second course in music theory includes voice-leading, seventh chords, modulation types, secondary dominants, secondary leading-tone chords, and binary and ternary forms.

3 hours lecture.

MUS 134 Aural Skills I (1)

Prerequisite(s): Concurrent enrollment in MUS 132.

A progressive series of exercises in sight singing, rhythmic dictation, and melodic dictation.

1 hour lecture.

MUS 135 Aural Skills II (1)

Prerequisite(s): MUS 134 and concurrent enrollment in MUS 133.

A continuation of the progressive series of exercises in sight singing, rhythmic dictation, and melodic dictation introduced in MUS 134.

1 hour lecture.

MUS 201 ‡ Ensemble (1)

Prerequisite(s): Audition.

Trios, quartets, quintets, etc., will be formed to perform and study music written or arranged for the small ensemble. In addition to rehearsal, groups will occasionally perform in public, either on campus or in surrounding communities.

2 hours rehearsal/performance.

MUS 201A Voice Ensemble

MUS 201D Percussion Ensemble
MUS 201F Guitar Ensemble
MUS 201G Jazz Ensemble

MUS 210 Music Theatre Workshop (2)

Prerequisite(s): Audition or permission of instructor.

A practical study of vocal and performance strategies for projection and communication. Students will participate in a college-sponsored operatic or musical production.

1 hour lecture, 3 hours rehearsal/performance.

MUS 232 * (SUN# MUS 2222) Music Theory III (3)

Prerequisite(s): MUS 133 and MUS 135.

This third music theory course focuses in chronological order on art music from the late Renaissance period through the early 20th century. Major forms are analyzed through melody, harmony, and various musical motives.

3 hours lecture, 1 hour laboratory.

MUS 233 * (SUN# MUS 2223) Music Theory IV (3)

Prerequisite(s): MUS 232.

This fourth music theory course focuses in chronological order on art music from the late 19th century through the middle of the 20th century. Major forms are analyzed through melody, harmony, and various musical motives.

3 hours lecture, 1 hour laboratory.

MUS 236 ‡ Repertoire Strategy (1)

Prerequisite(s): Permission of instructor.

Exploration of choral and instrumental chamber repertoire from the Middle Ages through the mid-18th century. Emphasis is on technique and interpretation. Performing groups include duets, trios, and small chamber groups.

3 hours rehearsal/performance.

MUS 260 Music Fundamentals through Experience (3)

Prerequisite(s): None.

An introduction to musical skills, the mechanics of music, and musical experiences as a background for teaching music to children. Introduction to playing keyboard, autoharp, and recorder, as well as singing. Previous musical experience is not required. Fulfills the music education requirement for teacher certification.

3 hours lecture.

NET - NETWORKING

The networking courses are offered only at the Arizona Department of Corrections in Douglas.

NET 112 Fundamentals of Voice and Data Cabling I (3)

Prerequisite(s): CIS 150.

An introduction to the handling and installation of voice and data transmission media. This course provides students with a general industry and networking overview, as well as building a solid foundation in media types, transmission practices, and installation theory. Emphasis will be on industry cabling standards for the handling, installation, and proper termination of the various media involved in voice and data communications.

2 hours lecture, 3 hours laboratory.

NET 212 Fundamentals of Voice and Data Cabling II (3)

Prerequisite(s): NET 112.

This course builds on the knowledge gained in NET 112. Emphasis is on practical installation, including the rough-in, trim-out, finish, and customer-support phases. The future of cabling is also covered as it relates to such issues as demand for bandwidth and localization.

2 hours lecture, 3 hours laboratory.

NUR - NURSING

NUR 120 ‡ Transition: Nursing Assistant to Practical Nurse (1)

Prerequisite(s): NUR 122 with a grade of B or better at Cochise College within the last twelve months and approval of Nursing Department.

For first-year re-entering nursing students who have been out of nursing studies at Cochise College for less than one year. Provides an update of the philosophy, policies, and procedures of the Cochise College nursing program. Emphasis is on the nursing process, patient care planning, therapeutic use of self, clinical expectations, and basic nursing skills.

1 hour lecture, 0.5 hour laboratory.

NUR 121A Medication Math I (2)

Prerequisite(s): Appropriate placement test score or MAT 081, and acceptance into the nursing program.

This course gives students the math skills necessary to convert and calculate drug dosages for oral, injectable, and intravenous drugs. Experience is provided in techniques for the calculation of oral and parenteral drug dosages for adults and children, and for the calculation of intravenous flow rates.

2 hours lecture, 1 hour laboratory.

NUR 121B Medication Math II (2)

Prerequisite(s): NUR 121A with a grade of B or better, and concurrent enrollment in NUR 232.

This course reinforces the skills necessary to convert and calculate drug dosages for oral, injectable, and intravenous drugs; it reviews techniques for the calculation of oral and parenteral drug dosages for adults and children, and for the calculation of intravenous flow rates. Focus is on these skills and techniques as they apply to pediatrics, critical care, pediatric critical care, labor and delivery, and the general community.

2 hours lecture, 1 hour laboratory.

NUR 122 ‡ Nursing I (8)

Prerequisite(s): BIO 201, BIO 202, and NUR 203, all with a grade of B or better; ENG 101 and ENG 102; and admission into the nursing program.

In this first-semester course in the nursing program, students learn concepts and skills necessary to provide basic nursing care to healthy adults in a variety of settings. Focus is on basic physiological and psychological needs of clients throughout the adult lifespan across all cultures.

4 hours lecture, 12 hours laboratory.

NUR 123 ‡ Nursing II-A (5)

Prerequisite(s): NUR 121A and NUR 122, both with a grade of B or better, and PSY 101.

In this second-semester course in the nursing program, students continue to build on the basic concepts and skills needed to provide nursing care throughout the adult lifespan. Focus is on the application across all cultures of skills necessary in the care of adults with diseases and disorders. Upon successful completion of Nursing II-A and Nursing II-B, students are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

3 hours lecture, 6 hours laboratory.

NUR 124 ‡ Nursing II-B (5)

Prerequisite(s): NUR 121A and NUR 122, both with a grade of B or better, and PSY 101.

In this additional second-semester course in the nursing program, students build on the basic concepts and skills necessary to provide nursing care to obstetrical and pediatric clients. Focus is on family care and the application across all cultures of nursing skills, on biopsychosocialcultural concepts relating to growth and development, on disorders and diseases of pediatric clients, and on normal and high-risk obstetrical clients. Upon successful completion of Nursing II-A and Nursing II-B, students are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

3 hours lecture, 6 hours laboratory.

NUR 125 ‡ Bridge: Nursing Assistant to Practical Nurse (3)

Prerequisite(s): BIO 201, BIO 202, and NUR 203, all with a grade of B or better; ENG 101, ENG 102, and PSY 101; and admission into the nursing program.

For first-year re-entering nursing students who have been out of nursing studies at Cochise College for more than one year, and for first-year nursing students who are challenging into the program from other nursing programs. Provides a detailed update of the philosophy, policies, and procedures of the Cochise College nursing program and a review of the concepts and skills necessary to provide basic nursing care to patients in a variety of settings. Emphasis is on the scope of practice for the practical nurse, which includes communication, the nursing process, ethical and legal issues, and leadership skills.

2 hours lecture, 2 hours laboratory.

NUR 201 ‡ Infusion Therapy/Venipuncture by Licensed Practical Nurses (3)

Prerequisite(s): Current unencumbered LPN license or two semesters of nursing.

Teaches the theory and technical skills necessary to provide intravenous (IV) therapy and venipuncture, including the administering of premixed intravenous medications and solutions through an IV line. Adheres to the competencies for infusion therapy/venipuncture outlined in the Arizona State Board of Nursing Advisory Opinion. Upon successful completion, students receive a departmental Certificate of Competency indicating they have met state guidelines.

3 hours lecture, 1 hour laboratory.

NUR 203 * Update on Pharmacology (3)

Prerequisite(s): ENG 101, RDG 122, or exemption.

This course applies information about current medications to patient care. Students learn to assess, evaluate and analyze information and situations, think critically, and make decisions necessary for the safe administering of medications.

3 hours lecture.

NUR 220 ‡ Transition: Practical Nurse to Registered Nurse (1)

Prerequisite(s): NUR 123 or NUR 232 with a grade of B or better at Cochise College within the last twelve months and approval of Nursing Department.

For second-year re-entering nursing students who have been out of nursing studies at Cochise College for less than one year. Provides a review and an update of the philosophy, policies, and procedures of the Cochise College nursing program. Emphasis is on the nursing process, patient care planning, therapeutic use of self, clinical expectations, and more advanced nursing skills.

1 hour lecture, 0.5 hour laboratory.

NUR 225 ‡ Bridge: Practical Nurse to Registered Nurse (3)

Prerequisite(s): BIO 201, BIO 202, NUR 121A, and NUR 203, all with a grade of B or better; ENG 101, ENG 102, PSY 101, and PSY 240; and admission into the nursing program.

For second-year re-entering nursing students who have been out of nursing studies at Cochise College for more than one year, and for second-year nursing students who are challenging into the program from other nursing programs. Provides a detailed update of the philosophy, policies, and procedures of the Cochise College nursing program and a comprehensive review of concepts and skills necessary to provide basic nursing care to patients in variety of settings. Emphasis is on the care of obstetric clients, pediatric clients, and adult clients with selected health alterations.

2 hours lecture, 2 hours laboratory.

NUR 232 ‡ Nursing III (10)

Prerequisite(s): NUR 123 and NUR 124, both with a grade of B or better, and PSY 240.

In this third-semester course in the nursing program, the focus is on the problems and the physical and psychosocial health needs of acutely-ill adult clients. Topics include the framework for effective communication and the nursing process with emphasis on intervention and evaluation. A clinical setting helps students develop competence in discharge planning, community nursing, and leadership. Students utilize knowledge of new developments in health care to adapt to changes in the field and to be proactive in the nursing profession.

6 hours lecture, 12 hours laboratory.

NUR 233 ‡ Nursing IV (10)

Prerequisite(s): NUR 121B and NUR 232, both with a grade of B better.

In this fourth-semester course in the nursing program, the focus is on the complex problems and the physical and psychosocial health needs of critically-ill adult clients. During their nursing preceptorship, students work intensively with a registered nurse in their transition from student to nurse. Upon successful completion of this course, students are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

6 hours lecture, 12 hours laboratory.

PFT - Professional Flight Technology

PFT 100 ‡ Introduction to Aviation (1)

Prerequisite(s): Acceptance into the aviation program.

Instruction in the program-specific requirements, polices, and aircraft procedures which are not covered in Federal Aviation Administration training course outlines. Designed to prepare students who have been accepted into the aviation program for flight training.

1 hour lecture.

PFT 101 * Private Pilot Ground School (5)

Prerequisite(s): Acceptance into the aviation program.

A comprehensive course that prepares students for the Federal Aviation Administration Private Pilot Airplane knowledge exam. Prepares students to acquire the knowledge and skills necessary to operate as a private pilot and to pursue a career in aviation.

5 hours lecture.

PFT 103 Private Pilot Review (1)

Prerequisite(s): Acceptance into the aviation program.

Recommended Preparation: Successful completion of the FAA Private Pilot knowledge test.

A review of the course materials and of the flight proficiency requirements for the Federal Aviation Administration Private Pilot Certification. Also prepares those seeking to satisfy FAA currency requirements.

1 hour lecture.

PFT 111 Solo Flight Preparation (3.5)

Prerequisite(s): Concurrent enrollment in PFT 101 or permission of the Aviation Department.

Designed to prepare the student for solo flight in accordance with FAA requirements.

3.5 hours lecture.

PFT 112 Cross-Country Navigation (1.5)

Prerequisite(s): PFT 101 and concurrent enrollment in PFT 111, or permission of the Aviation Department.

Designed to prepare the student for cross-country navigation in accordance with FAA requirements.

1.5 hours lecture.

PFT 113 Private Pilot Certification (1)

Prerequisite(s): PFT 111 and concurrent enrollment in PFT 112, or permission of the Aviation Department.

Designed to prepare the student for private pilot certification in accordance with FAA requirements.

1 hour lecture.

PFT 121 Commercial Flight I (3)

Prerequisite(s): Possession of a Private Pilot Airplane Single Engine Land Certificate.

The first in a series of three courses designed to prepare students for a Commercial Pilot Airplane Single Engine Land Certificate. Topics include preflight preparations and procedures, flight maneuvers, and postflight operations, with emphasis on the airmanship skills and aeronautical knowledge stipulated by the Federal Aviation Administration for commercial pilots. Provides a foundation for the development of a professional pilot career.

3 hours lecture.

PFT 122 * Aviation Weather (3)

Prerequisite(s): PFT 101 or permission of instructor.

A continuation of the study of aviation weather theory, one of the topics introduced in PFT 101. Includes an in-depth study of weather elements and hazards, and of aviation weather reports and forecasts. Covers weather conditions as they relate to aircraft and flight performance.

3 hours lecture.

PFT 130 * Commercial Pilot Ground School (5)

Prerequisite(s): PFT 101 or possession of a Private Pilot Certificate, and acceptance into the aviation program.

A comprehensive course that prepares students for the Federal Aviation Administration Commercial Pilot Airplane knowledge exam. Focuses on improving students' aeronautical knowledge as well as their decision-making, aviation-safety, and risk-management skills in preparation for a career as a commercial pilot.

5 hours lecture.

PFT 131 Commercial Flight II (3)

Prerequisite(s): PFT 121, concurrent enrollment, or permission of the director of aviation; and possession of a Private Pilot Certificate with Airplane Single Engine Land.

The second in a series of three courses designed to prepare students for a Commercial Pilot Airplane Single Engine Land Certificate. Focus is on commercial pilot-level airmanship skills and aeronautical knowledge. Continues developing the foundation for a professional pilot career.

3 hours lecture.

PFT 204 * Instrument Rating Ground School (5)

Prerequisite(s): PFT 101 or possession of a Private Pilot Certificate, and acceptance into the aviation program.

A comprehensive course that prepares students for the Federal Aviation Administration Instrument Rating Airplane exam. Focuses on air traffic control procedures, the national airspace system, aviation weather, risk management, aeronautical decision making, and aviation safety as they all relate to instrument flight operations in preparation for a career as a professional pilot.

5 hours lecture.

PFT 206 * Aircraft Systems (3)

Prerequisite(s): PFT 101 or permission of the director of aviation.

A study of the fundamentals of physics, and of various aircraft systems—mechanical, electrical, and hydraulic—used to manage complex aircraft operations.

3 hours lecture.

PFT 210 * Multi-Engine Rating Ground School (1)

Prerequisite(s): Possession of a Private Pilot Certificate with Airplane Single Engine Land.

A comprehensive course covering the aeronautical knowledge required for a Multi-Engine Land Airplane Class Rating.

1 hour lecture.

PFT 211 Multi-Engine Rating Flight (1)

Prerequisite(s): PFT 210 or concurrent enrollment; and possession of a Private Pilot Certificate with Airplane Single Engine Land.

A comprehensive course that develops the required airmanship skills, knowledge, and proficiency for a Multi-Engine Land Airplane Class Rating per the Federal Aviation Administration Practical Test Standards.

1 hour lecture.

PFT 214 Instrument Rating Flight I (3.5)

Prerequisite(s): PFT 204.

The first of two courses designed to prepare the student for instrument flight navigation and air traffic control rating in accordance with FAA requirements.

3.5 hours lecture.

PFT 215 Instrument Rating Flight II (1.5)

Prerequisite(s): PFT 214.

The second of two courses designed to prepare the student for instrument flight navigation and air traffic control rating in accordance with FAA requirements.

1.5 hours lecture.

PFT 217 Instrument Pilot Review (1)

Prerequisite(s): Acceptance into the aviation program.

Recommended Preparation: Successful completion of the FAA Instrument Rating knowledge test.

A review of the course materials and of the flight proficiency requirements for the Federal Aviation Administration Instrument Rating Certification. Also prepares those seeking to satisfy FAA currency requirements.

1 hour lecture.

PFT 218 Commercial Flight III (1)

Prerequisite(s): PFT 121 or concurrent enrollment and PFT 131 or concurrent enrollment, or permission of the director of aviation; and possession of a Private Pilot Certificate with Airplane Single Engine Land.

The third in a series of three courses designed to prepare the student for a Commercial Pilot Airplane Single Engine Land Certificate. Emphasis is on correlating the aeronautical knowledge and airmanship skills developed in PFT 121 and PFT 131 with the Federal Aviation Administration Commercial Pilot Practical Test Standards.

1 hour lecture.

PFT 220 Commercial Pilot Review (1)

Prerequisite(s): Acceptance into the aviation program.

Recommended Preparation: Successful completion of the FAA Commercial Pilot knowledge test.

A review of the course materials and of the flight proficiency requirements for the Federal Aviation Administration Commercial Pilot Certification. Also prepares those seeking to satisfy FAA currency requirements.

1 hour lecture.

PFT 222 ‡ Aircraft Dispatcher (7)

Prerequisite(s): PFT 101, PFT 122, PFT 204, and PFT 206.

A comprehensive course that prepares students for the Federal Aviation Administration Aircraft Dispatcher Certificate required for a career as a licensed dispatcher. Topics include FAA regulations, weather protocol, flight planning and decision making, and navigation and dispatch procedures.

7 hours lecture.

PFT 230 Flight Instructor - Fundamentals Ground School (3)

Prerequisite(s): PFT 130 and PFT 204, or permission of the director of aviation.

A study of the principles of teaching and performance assessment, and an analysis of student behavior and learning as they all relate to aviation students. Offered in preparation for the Federal Aviation Administration Fundamentals of Instructing knowledge exam.

3 hours lecture.

PFT 231 Flight Instructor - Airplane Ground School (5)

Prerequisite(s): PFT 130, PFT 204, and PFT 230 or concurrent enrollment.

An application of the fundamentals of instruction as they relate to aviation students. Emphasis is on the development and demonstration of the instructional knowledge and skills required for the Federal Aviation Administration Flight Instructor Airplane Single Engine practical test.

5 hours lecture.

PFT 233 Flight Instructor - Airplane Review (1)

Prerequisite(s): Acceptance into the aviation program.

Recommended Preparation: Successful completion of the FAA Fundamentals of Instruction and Flight Instructor Airplane knowledge tests.

A review of the course materials and of the flight proficiency requirements for the Federal Aviation Administration Flight Instructor Airplane Certification. Also prepares those seeking to satisfy FAA currency requirements.

1 hour lecture.

PFT 235 Flight Instructor - Airplane Stage I (1.5)

Prerequisite(s): Possession of a Commercial Airplane Single Engine Land Certificate with an Instrument Airplane Rating.

Recommended Preparation: PFT 230 and PFT 231, or successful completion of the FAA Flight Instructor Airplane and FAA Fundamentals of Instruction knowledge tests.

The first of two courses that apply the fundamentals of instruction, with a demonstration of the aeronautical knowledge and airmanship skills required for students seeking the Flight Instructor Airplane Single Engine Certification. Flight training occurs in a non-complex aircraft.

1.5 hours lecture.

PFT 236 Flight Instructor - Airplane Stage II (1.5)

Prerequisite(s): PFT 235 and possession of a Commercial Airplane Single Engine Land Certificate with an Instrument Airplane Rating.

The second of two courses that apply the fundamentals of instruction, with a demonstration of the aeronautical knowledge and airmanship skills required for students seeking the Flight In-

structor Airplane Single Engine Certification. Flight training occurs in a complex aircraft.

1.5 hours lecture.

PFT 240 Flight Instructor - Multi-Engine Ground School (2)

Prerequisite(s): PFT 230 or concurrent enrollment and PFT 231 or concurrent enrollment, or possession of a Flight Instructor Airplane Single Engine Certificate and a Commercial Airplane Multi-Engine Land Certificate.

An application of the fundamentals of instruction as they relate to aviation students. Emphasis is on the development and demonstration of the instructional knowledge and skills required for the Federal Aviation Administration Flight Instructor Airplane Multi-Engine practical test.

2 hours lecture.

PFT 241 Flight Instructor - Multi-Engine Flight (2)

Prerequisite(s): PFT 230, PFT 231, and possession of a Flight Instructor Airplane Single Engine Certificate and a Commercial Airplane Multi-Engine Land Certificate with Instrument Rating.

An application of the fundamentals of instruction, and a demonstration of the aeronautical knowledge and airmanship skills required for students seeking the Flight Instructor Airplane Multi-Engine Certification.

2 hours lecture.

PFT 250 Flight Instructor - Instrument Ground School (3)

Prerequisite(s): PFT 230 or concurrent enrollment, PFT 231 or concurrent enrollment, PFT 235 or concurrent enrollment, and PFT 236 or concurrent enrollment; or possession of a Flight Instructor Airplane Single Engine Certificate.

An application of the fundamentals of instruction as they relate to aviation students. Emphasis is on the development and demonstration of the instructional knowledge and skills required for the Federal Aviation Administration Flight Instructor Instrument Ground practical test.

3 hours lecture.

PFT 251 Flight Instructor - Instrument Flight (3)

Prerequisite(s): PFT 230 or concurrent enrollment, PFT 231 or concurrent enrollment, PFT 235 or concurrent enrollment, and PFT 236 or concurrent enrollment; and possession of a Flight Instructor Airplane Single Engine Certificate and a Commercial Airplane Single Engine Land Certificate with Instrument Rating.

An application of the fundamentals of instruction, and a demonstration of the aeronautical knowledge and airmanship skills required for students seeking the Flight Instructor Instrument Airplane Certification.

3 hours lecture.

PFT 260 Airline Transport Pilot - Ground School (3)

Prerequisite(s): Possession of a Commercial Pilot Airplane Certificate with an Instrument Rating.

A comprehensive course leading to completion of the FAA requirements for an Airline Transport Pilot Certification.

3 hours lecture.

PFT 261 Airline Transport Pilot - Flight (1)

Prerequisite(s): Possession of a Commercial Pilot Airplane Certificate with an Instrument Rating.

A comprehensive course leading to completion of the FAA requirements for an Airline Transport Pilot Certification.

1 hour lecture.

PFT 271 Unmanned Aerial Vehicle (UAV) Operator (29)

Prerequisite(s): PFT 101 or successful completion of an FAA approved Stage One Ground School, and a sponsored employee of the Department of Defense or of a DOD UAV contractor.

Provides the student with the theoretical and practical skills and knowledge necessary to safely employ, in any theater of operation, the UAV system for which the student has been trained, incorporating the aerial vehicle, mission payload and flight line operations.

21 hours lecture, 26 hours laboratory.

PFT 272 Unmanned Aerial Vehicle (UAV) External Pilot (26)

Prerequisite(s): PFT 101 or completion of a FAA certified Stage One Ground School, and PFT 271. Sponsored employee of the Department of Defense or of a DOD UAV contractor.

Designed to provide the student with the theoretical knowledge and practical skills necessary to perform the external pilot functions of the Hunter unmanned aerial vehicle system, including launch and recovery operations, traffic pattern operations, and emergency recovery procedures and operations.

18 hours lecture, 20 hours laboratory.

PHI - PHILOSOPHY

PHI 111 * (SUN# PHI 1101) Introduction to Philosophy (3)

Prerequisite(s): ENG 101 or permission of instructor.

An introduction to the history, key figures, and major branches of philosophy. Critical reading of selected classical and contemporary texts and analysis of their connections to the individual, society and to other bodies of knowledge; practice in oral argumentation through participation in class discussions; writing of critical/analytical essays grounded in readings and class discussions.

3 hours lecture.

PHI 113 * (SUN# PHI 1103) Introduction to Logic and Language (3)

Prerequisite(s): ENG 101 or concurrent enrollment, and placement in MAT 122 or higher.

Elementary study of formal logic, symbolic logic, logical fallacies, induction, argument and language.

3 hours lecture.

PHI 130 * (SUN# PHI 1105) Ethics (3)

Prerequisite(s): ENG 101 or concurrent enrollment, or permission of instructor.

An introduction to moral philosophy with emphasis on philosophical analysis of contemporary issues.

3 hours lecture.

PHI 201 * Philosophies of the East (3)

Prerequisite(s): ENG 101 or permission of instructor.

Recommended Preparation: Computer literacy.

Hinduism, Buddhism, Taoism, and Confucianism with emphasis on their roles in the modern world.

3 hours lecture.

PHI 202 * Philosophy of Religion (3)

Prerequisite(s): ENG 101 and ENG 102.

Introduction to the nature of religion, nature and existence of God and major religious tenets of western thought.

3 hours lecture.

PHT - Pharmacy Technology

PHT 224 Field Experience in Pharmacy Technology (1-6)

Prerequisite(s): Prior approval of the cooperative education program coordinator and a recommendation from a faculty member in an appropriate discipline.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career skills objectives related to the pre-pharmacy field.

PHY - Physics

PHY 110 ‡ Fundamentals of Physical Science (4)

Prerequisite(s): MAT 081; and RDG 122 or exemption, or concurrent enrollment in a collaborative RDG 110.

A one-semester survey of the principles of physics and chemistry designed to introduce the fundamental behavior of matter and energy to non-science majors with little or no science background.

3 hours lecture, 3 hours laboratory.

PHY 111 ‡ (SUN# PHY 1111) General Physics I (4)

Prerequisite(s): MAT 122 or MAT 123.

An introduction to the general principles of physics in the area of classical mechanics. Special emphasis is placed on algebra in solving word problems. Topics include kinematics, dynamics, energy, momentum, motion, fluids, elasticity and oscillations, and waves and sounds. For students whose degree programs do not require physics with calculus.

3 hours lecture, 3 hours laboratory.

PHY 112 ‡ (SUN# PHY 1112) General Physics II (4)

Prerequisite(s): PHY 111.

Introductory physics without calculus. Topics include electrostatics, electric potential, resistance, circuits, electromagnetism, and Faraday's law; light, lenses, optical instruments, and interference; and quantum physics, atoms, and nuclei. For students whose degree programs do not require physics with calculus.

3 hours lecture, 3 hours laboratory.

PHY 230 ‡ (SUN# PHY 1121) Physics with Calculus I (4)

Prerequisite(s): MAT 220 and either PHY 111 or one year of high school physics.

A fundamental calculus-based study of classical mechanics. Topics include kinematics, dynamics, energy, linear and angular momentum, and oscillations. For engineering students and others who require physics with calculus.

3 hours lecture, 3 hours laboratory.

PHY 231 ‡ (SUN# PHY 1131) Physics with Calculus II (4)

Prerequisite(s): PHY 230.

A study, using calculus concepts, of electromagnetic fields and their various applications. Topics include electrical and magnetic properties of matter, and circuit devices used in DC and simple AC circuits. For engineering students and others who require physics with calculus.

3 hours lecture, 3 hours laboratory.

PMD - Paramedicine

PMD 101 ‡ Paramedicine I (6)

Prerequisite(s): Appropriate mathematics placement test score, MAT 081, or higher; and RDG 122 or exemption. Prior to enrollment, students must meet the following requirements: 1) Current certification as an EMT (Arizona or National Registry), 2) Score of 75% or higher on computer-based entrance exam, 3) Proof of vaccinations, to include negative tuberculin (TB) skin test, measles, mumps, rubella (MMR), varicella, and hepatitis B series, and 4) Acceptance into the paramedicine program. Once enrolled, the following are required: 5) Drug screen and 6) Background check.

An introductory course that includes an EMT refresher, an overview of hazardous materials first responder operations, and a review of human anatomy and physiology.

6 hours lecture, 1 hour laboratory.

PMD 201 ‡ Paramedicine II (7)

Prerequisite(s): PMD 101.

An introduction to the roles and responsibilities of the paramedic and to advanced pre-hospital care. Topics include the medical and legal aspects of pre-hospital care, and the general principles of pathophysiology, pharmacology, and medication administration.

6 hours lecture, 2 hours laboratory.

PMD 202 ‡ Paramedicine III (7)

Prerequisite(s): PMD 201.

A continued study of pre-hospital care to include advanced airway management, therapeutic communication, physical examination techniques, and patient assessment in the field, with an overview of trauma and burns.

6 hours lecture, 2 hours laboratory.

PMD 203 ‡ Paramedicine IV (10)

Prerequisite(s): PMD 202.

An in-depth study of pulmonary- and cardiac-related medical emergencies. Focuses on cardiac anatomy and physiology, electrocardiogram interpretations and interventions, and preparation for certification in Advanced Cardiac Life Support (ACLS). Students begin clinical rotations during this course.

6 hours lecture, 8 hours laboratory.

PMD 204 ‡ Paramedicine V (10)

Prerequisite(s): PMD 203.

A continued study of medical emergencies with focus on neurology, endocrinology, allergic reactions, anaphylaxis, gastroenterology, urology, nephrology, toxicology, and gynecology and obstetrics. Students continue clinical rotations.

6 hours lecture, 8 hours laboratory.

PMD 205 ‡ Paramedicine VI (9)

Prerequisite(s): PMD 204.

An overview of the various responses to and treatments for infectious diseases, psychological emergencies, and conditions requiring attention in the areas of neonatology, pediatrics, geriatrics, and challenged patients. Additional topics include the incident command system (ICS) and special operations such as rescue situations, hazardous materials, and terrorism as they relate to medical emergencies. Includes certification in Pediatric Advanced Life Support (PALS). Students increase their number of clinical rotations.

2 hours lecture, 14 hours laboratory.

PMD 206 ‡ Paramedicine VII (6)

Prerequisite(s): PMD 205.

The capstone course of the paramedicine program, offered primarily as a field internship. Students are assigned to a paramedic preceptor on an advanced life support (ALS) ambulance where they operate as the lead paramedic in the field. Students, preceptors, and instructors meet weekly to discuss student progress.

1 hour lecture, 10 hours laboratory.

PMD 210 ‡ Paramedic Refresher (3)

Prerequisite(s): Certification as an Arizona or nationally-registered paramedic in good standing.

A refresher course that equips students with the knowledge and skills required of paramedics seeking recertification. Topics include preparatory information—roles and responsibilities of the paramedic, medical and ethical issues, and basic anatomy and physiology—as well as airway management and ventilation, patient assessment, trauma, and medical conditions as they relate to emergency medical systems. May be repeated as required for recertification.

3 hours lecture, 1 hour laboratory.

POS - Political Science

POS 110 * (SUN# POS 1110) American National Government (3)

Prerequisite(s): RDG 122, concurrent enrollment, or exemption; and ENG 100 or placement in, or completion of, ENG 101.

A study of the political system of the United States with emphasis on constitutional development, political culture, voting, political parties, campaigns and elections, interest groups, public opinion, and the three branches of the national government. Designed to increase the student's awareness and understanding of the political process of the impact of race, gender and ethnicity upon the political process and of the citizen's role within that process. Fulfills the federal Constitution requirement for Arizona Teaching Certification.

3 hours lecture.

POS 220 * Federal and Arizona Constitution (3)

Prerequisite(s): RDG 122 or exemption, and ENG 101.

Recommended Preparation: ENG 102.

A study of the governments of the United States and Arizona through the interpretation of the constitution of each political entity. Approved for teacher certification. Teachers needing only Arizona Constitution should enroll in POS 221.

3 hours lecture.

POS 221 * Arizona Constitution (1)

Prerequisite(s): RDG 122 or exemption, and either ENG 101 or ENG 102.

Recommended Preparation: ENG 102 and POS 110.

A study of the government of Arizona through the interpretation of its constitution. Approved for teacher certification. Taught concurrently with POS 220.

1 hour lecture.

POS 230 * (SUN# POS 1120) World Politics (3)

Prerequisite(s): RDG 122 or exemption, and either ENG 101 or ENG 102.

Recommended Preparation: ENG 102 and either POS 110, POS 220, HIS 242, or concurrent enrollment.

A study of the international political system and nation-state relations, including the development of international systems, the Cold War and its aftermath, the pursuit of national objectives, current and future international alignments, and the analysis of current international problems.

3 hours lecture.

POS 240 * (SUN# POS 2204) Comparative Politics (3)

Prerequisite(s): RDG 122 or exemption, and either ENG 101 or ENG 102.

Recommended Preparation: ENG 102 and either POS 110, POS 220, HIS 242, or concurrent enrollment.

Introduction to the study of comparative politics with emphasis on the comparison of political systems, movements, ideologies and economic development.

3 hours lecture.

PSY - Psychology

PSY 101 * (SUN# PSY 1101) Introduction to Psychology (3)

Prerequisite(s): RDG 122 or exemption.

Recommended Preparation: ENG 100 or concurrent enrollment, or ENG 101.

A survey of major topics in psychology to include: history of psychology, research methods, biopsychology, sensation and perception, consciousness, learning, memory, motivation and emotion, human development, personality, abnormal behavior and therapy.

3 hours lecture.

PSY 103 * Personality and Adjustment (3)

Prerequisite(s): RDG 122 or exemption.

Recommended Preparation: ENG 100 or ENG 101.

A study of basic theoretical principles of psychology and their application to human behavior and growth. Emphasis on scientific psychology's contributions to more effective professional and personal relationships. Group activities and self-evaluation included.

3 hours lecture.

PSY 210 * Social Psychology (3)

Prerequisite(s): PSY 101.

Recommended Preparation: ENG 101 or ENG 102.

A study of basic concepts, theories and research pertaining to human interaction. Topics include attribution, attitude formation and change, interpersonal interaction, altruism and aggression, environmental psychology, and group structure and processes.

3 hours lecture.

PSY 218 * Loss, Grief, and Dying (3)

Prerequisite(s): RDG 122 or exemption.

An exploration of grief, dying and the loss of loved persons as individuals as well as global human experiences. The primary focus will be upon the coping skills of the affected persons and helping skills of others. Values, behaviors and intervention strategies will be studied in international, medical, diverse, social and legal contexts.

3 hours lecture.

PSY 230 * Personality Theories and Research (3)

Prerequisite(s): PSY 101, and ENG 101 or ENG 102.

A survey of major psychological theories of personality including psychoanalytic, neo-Freudian, dispositional/trait, learning and humanities/existential theories. Personality assessment based upon theory and research, normal and abnormal personality types, and exploration of one's own personality are also addressed.

3 hours lecture.

PSY 240 * Developmental Psychology (3)

Prerequisite(s): ENG 101 and PSY 101.

A sequential study of the human lifespan, from prenatal development through late adulthood, emphasizing research and theories in the biological, cognitive, and psychosocial domains.

3 hours lecture.

PSY 250 * Introduction to Psychological Research, Measurements and Statistics (3)

Prerequisite(s): PSY 101, ENG 101 or ENG 102, and MAT 122 or MAT 123.

Basic concepts of experimental design, measurement, and descriptive and inferential statistics as applied to psychological variables.

3 hours lecture.

PSY 270 Abnormal Psychology (3)

Prerequisite(s): PSY 101, ENG 101, and RDG 122 or exemption.

An examination of various psychological disorders as well as theoretical, clinical, and experimental perspectives on the study of psychopathology. Emphasis is on terminology, classification, etiology, assessment of symptoms, and therapeutic techniques for the treatment of the major disorders.

3 hours lecture.

PSY 290 Experimental Psychology (4)

Prerequisite(s): ENG 102, PSY 101, and PSY 250.

A review and analysis of scientific literature, with specific attention to experimental research designs. Students design psychological studies, collect and analyze data, and interpret and report research results.

3 hours lecture, 3 hours laboratory.

RDG - Reading

RDG 019 Transitional Reading (3-4)

Prerequisite(s): Placement test score.

Recommended Preparation: Keyboarding skills.

A course designed for students beginning regular college classes and for basic readers of English. Emphasis is on literal comprehension, vocabulary building and reading rate improvement.

RDG 020A Reading Fundamentals I (3-4)

Prerequisite(s): Placement test score or RDG 019.

Recommended Preparation: Keyboarding skills.

A review of basic reading, spelling and study skills. This class emphasizes literal and inferential comprehension, vocabulary development, review of spelling rules, dictionary skills and library use.

RDG 110 * College Study Skills (3)

Prerequisite(s): Placement test score, RDG 020A, or permission of instructor.

Recommended Preparation: Keyboarding skills.

A course emphasizing literal and critical reading strategies applied to content area textbooks and essays, general study skills application, and content area vocabulary acquisition.

3 hours lecture.

RDG 122 * Reading Critically (3)

Prerequisite(s): Placement test score, RDG 110, or permission of instructor.

Recommended Preparation: Keyboarding skills.

An advanced course in reading for critical thinking using college level study strategies, vocabulary, and logical analysis of texts involving research across the disciplines.

3 hours lecture.

RTH - Respiratory Therapy

RTH 110 ‡ Introduction to Respiratory Care (4)

Prerequisite(s): BIO 156, BIO 160, BIO 205, ENG 101, ENG 102, MAT 123 or higher, and two of the following—PSY 101, PSY 103, PSY 218, PSY 230, PSY 240, PSY 270, SOC 101, SOC 160, SOC 170, SOC 202, SOC 207, SOC 230; concurrent enrollment in RTH 112, RTH 121, and RTH 123; and acceptance into the respiratory therapy program.

An introduction to the respiratory care profession. Topics include respiratory care and the healthcare system; computer applications; patient safety, communication, and record keeping; principles of infection control; and ethical and legal implications of practice.

3 hours lecture, 3 hours laboratory.

RTH 112 ‡ Respiratory Physiology (4)

Prerequisite(s): BIO 156, BIO 160, BIO 205, ENG 101, ENG 102, MAT 123 or higher, and two of the following—PSY 101, PSY 103, PSY 218, PSY 230, PSY 240, PSY 270, SOC 101, SOC 160, SOC 170, SOC 202, SOC 207, SOC 230; concurrent enrollment in RTH 110, RTH 121, and RTH 123; and acceptance into the respiratory therapy program.

A study of the cardiopulmonary system and associated structures. Topics include the anatomy of the respiratory system, ventilation and diffusion of pulmonary gases, the circulatory system, oxygen and carbon dioxide transport, control of ventilation, and renal failure and its effects on the cardiopulmonary system.

4 hours lecture.

RTH 121 ‡ Basic Therapeutics (4)

Prerequisite(s): BIO 156, BIO 160, BIO 205, ENG 101, ENG 102, MAT 123 or higher, and two of the following—PSY 101, PSY 103, PSY 218, PSY 230, PSY 240, PSY 270, SOC 101, SOC 160, SOC 170, SOC 202, SOC 207, SOC 230; concurrent enrollment in RTH 110, RTH 112, and RTH 123; and acceptance into the respiratory therapy program.

An introduction to basic respiratory care therapeutics, equipment functions, and clinical indications and contraindications. Topics include medical gas therapy, oxygen delivery devices, humidity and aerosol therapy, hyperinflation therapy, chest physiotherapy, and basic airway management.

3 hours lecture, 3 hours laboratory.

RTH 123 ‡ Basic Assessment and Monitoring (4)

Prerequisite(s): BIO 156, BIO 160, BIO 205, ENG 101, ENG 102, MAT 123 or higher, and two of the following—PSY 101, PSY 103, PSY 218, PSY 230, PSY 240, PSY 270, SOC 101, SOC 160, SOC 170, SOC 202, SOC 207, SOC 230; concurrent enrollment in RTH 110, RTH 112, and RTH 121; and acceptance into the respiratory therapy program.

A study of the basic assessment and monitoring of cardiopulmonary-impaired patients. Topics include bedside respiratory assessment, clinical laboratory studies assessment, oxygenation and ventilation, pulmonary function measurements, clinical application of chest radiography, and basic interpretation of electrocardiogram tracing.

3 hours lecture, 3 hours laboratory.

RTH 124 Pharmacology for Respiratory Care (3)

Prerequisite(s): RTH 110, RTH 112, RTH 121, and RTH 123; and concurrent enrollment in RTH 162, RTH 235, and RTH 246.

A study of the principles of pharmacology and of drug receptor theory as they relate to patients with cardiopulmonary disease. Topics include general principles of pharmacology, drug dose calculations, effects of pharmacological agents on the central and peripheral nervous systems, bronchodilators, drugs used to control airway mucus and edema, and drugs used in the management of ventilator patients and patients with cardiorespiratory disorders.

3 hours lecture.

RTH 162 ‡ Principles of Mechanical Ventilation (3)

Prerequisite(s): RTH 110, RTH 112, RTH 121, and RTH 123; and concurrent enrollment in RTH 124, RTH 235, and RTH 246.

An introduction to the concepts of mechanical ventilation for adult patients. Topics include reasons for mechanical ventilation, principles of non-invasive and invasive mechanical ventilation, physiological basis for ventilatory support, physical principles of positive pressure ventilation, physical assessment of critically-ill patients, and respiratory monitoring in the intensive care unit.

3 hours lecture.

RTH 235 Clinical Procedures I (4)

Prerequisite(s): RTH 110, RTH 112, RTH 121, and RTH 123; and concurrent enrollment in RTH 124, RTH 162, and RTH 246.

A clinical application of respiratory care coursework. Topics include a site orientation; a review of hospital respiratory department administration and departmental policies, procedures, and reporting systems; an introduction to medical records; and patient assessment and monitoring. Also included are various respiratory therapies, infection control procedures, techniques for medical asepsis, equipment disinfection and processing, patient care plans, and case studies.

2 hours lecture, 6 hours laboratory.

RTH 241 ‡ Critical Care Therapeutics (4)

Prerequisite(s): RTH 124, RTH 162, RTH 235, and RTH 246; and concurrent enrollment in RTH 243 and RTH 245.

A study of critical care principles and procedures in adult patients. Topics include airway management, mechanical ventilation waveform graphics, selected mechanical ventilators and their troubleshooting, care of mechanically-ventilated patients, alternative modes of mechanical ventilation, and home mechanical ventilation.

3 hours lecture, 3 hours laboratory.

RTH 243 ‡ Advanced Assessment and Monitoring (4)

Prerequisite(s): RTH 124, RTH 162, RTH 235, and RTH 246; and concurrent enrollment in RTH 241 and RTH 245.

A study of the assessment of critical respiratory patients. Topics include cardiac output, invasive hemodynamics, sleep-related breathing disorders, nutritional assessment, advanced cardiac arrhythmia interpretation, and bronchoscopy.

3 hours lecture, 3 hours laboratory.

RTH 245 Clinical Procedures II (5)

Prerequisite(s): RTH 124, RTH 162, RTH 235, and RTH 246; and concurrent enrollment in RTH 241 and RTH 243.

A continuation of RTH 235. Topics include basic and advanced airway management and care, basic cardiopulmonary resuscitation, arterial blood gases, advanced respiratory monitoring, mechanical ventilation, and care decisions for adult patients. Additional topics include hemodynamic assessment of the critically-ill patient, respiratory care delivery environments, and case study presentations.

3 hours lecture, 6 hours laboratory.

RTH 246 Cardiorespiratory Disorders I (3)

Prerequisite(s): RTH 110, RTH 112, RTH 121, and RTH 123; and concurrent enrollment in RTH 124, RTH 162, and RTH 235.

A study of commonly encountered respiratory disorders in adult patients. Topics include infectious pulmonary diseases, obstructive pulmonary diseases, traumatic lung and chest injuries, pulmonary vascular diseases, disorders of the pleura and chest wall, and important issues related to cardiopulmonary disorders.

3 hours lecture.

RTH 251 ‡ Advanced and Specialty Therapeutics (5)

Prerequisite(s): RTH 241, RTH 243, and RTH 245; and concurrent enrollment in RTH 255, RTH 256, and RTH 257.

A study of respiratory therapies used in specialized environments. Topics include development and care of the fetus, care of the neonatal and pediatric patient, management of ventilation and oxygenation in the neonatal and pediatric patient, transport, home care, and care of the neonatal and pediatric patient, advanced cardiac life support (ACLS), pulmonary rehabilitation, and advanced cardiorespiratory care therapies.

4 hours lecture, 3 hours laboratory.

RTH 255 Clinical Procedures III (5)

Prerequisite(s): RTH 241, RTH 243, and RTH 245; and concurrent enrollment in RTH 251, RTH 256, and RTH 257.

A continuation of RTH 245. Topics include clinical assessment, advanced airway management, and advanced respiratory monitoring of neonatal and pediatric patients, mechanical ventilation and care decisions for adult, neonatal, and pediatric patients. Additional topics include various respiratory care delivery environments and case study presentations.

3 hours lecture, 6 hours laboratory.

RTH 256 ‡ Cardiorespiratory Disorders II (3)

Prerequisite(s): RTH 241, RTH 243, and RTH 245; and concurrent enrollment in RTH 251, RTH 255, and RTH 257.

A continuation of RTH 246. Topics include neuromuscular disorders affecting ventilation, neoplastic diseases of the lung, and environmental lung diseases. Additional topics include assessment of the fetus and the neonate, cardiovascular disorders and congenital anomalies of the newborn, cardiopulmonary disorders of the newborn, and pediatric cardiopulmonary disorders.

3 hours lecture.

RTH 257 ‡ Clinical Applications and Professional Development (1)

Prerequisite(s): RTH 241, RTH 243, and RTH 245; and concurrent enrollment in RTH 251, RTH 255, and RTH 256.

Clinical application projects that include writing resumes, completing computerized self-assessment exams for credentialing, and interacting with licensure and national credentialing organizations. Additional topics include participation in a respiratory-related service learning project and professional development through shared reporting.

3 hours laboratory.

SLE - Service Learning

SLE 192 Special Topics in Service Learning (1-3)

Prerequisite(s): Concurrent enrollment in a course approved by the instructor.

Students engage in a formal, community-based service learning experience and reflect on how it applies to the content of the course they are concurrently enrolled in, thereby deepening their understanding of the relationship between community and classroom learning.

SLE 292 Special Topics in Service Learning II (1-3)

Prerequisite(s): SLE 192.

Recommended Preparation: Sophomore standing.

An advanced, community-focused service-learning experience that provides an opportunity for students to hone service and engagement skills acquired in SLE 192, to participate actively in an organized service experience and, through reflection activities, to relate those experiences to academic or occupational course content. A minimum of 25 direct service hours per credit is required in addition to periodic instructor or mentor meetings and training sessions.

SOC - Sociology

SOC 101 * (SUN# SOC 1101) Introduction to Sociology (3)

Prerequisite(s): RDG 110 or concurrent enrollment, or RDG 122 or exemption.

A survey of the science of sociology including: research methodology, the theoretical schools of sociology, culture, socialization, social institutions, collective behavior, social change, and the components of social structure from a global perspective.

3 hours lecture.

SOC 160 * (SUN# SOC 2215) Ethnic Groups and Minorities (3)

Prerequisite(s): ENG 101, concurrent enrollment, or permission of instructor; and RDG 122 or exemption.

Recommended Preparation: SOC 101, PSY 101, or ANT 102.

A theoretical analysis of prejudice, discrimination and minority group relations from a sociological viewpoint. Includes an in-depth analysis of the historical and sociological underpinnings of the racial and ethnic based minority status of African Americans, Hispanic Americans, Asian Americans, Native Americans, Jewish Americans and women. Also includes a review of the present socio-economic and cultural status of each group, their relationship with other social groups and future trends.

3 hours lecture.

SOC 170 * Understanding and Managing Conflict (3)

Prerequisite(s): None.

A study of the causes of conflict and its personal and interpersonal effects. Includes an analysis of the impact of both healthy and unhealthy conflict on organizational and personal goal achievement. Provides conceptual and practical tools to effectively minimize, manage, and resolve conflict resulting from social interaction and interpersonal communication. Identical to BUS 170.

3 hours lecture.

SOC 202 * (SUN# SOC 2250) Social Problems (3)

Prerequisite(s): ENG 101, concurrent enrollment, or permission of instructor; and RDG 122 or exemption.

Recommended Preparation: SOC 101, PSY 101, or ANT 102.

Topics to be covered include issues, questions and problems affecting women, racial and ethnic minorities, families and the aged. In addition, inequalities dealing with social, educational and financial institutions will be covered. Also to be considered are problems of drug and alcohol use, physical and mental health care, crime and sexual differences. The course is designed to prepare students to assess social problems and propose resolutions in a logical and scientific manner.

3 hours lecture.

SOC 207 * Introduction to Social Welfare (3)

Prerequisite(s): ENG 101, concurrent enrollment, or permission

of instructor; and RDG 122 or exemption.

Recommended Preparation: SOC 101, PSY 101, or ANT 102.

An introduction to traditional social work institutions and contemporary human services organizations, locally and globally. Designed to acquaint the student with various programs, such as the social insurance system, available to the general public through legislation and/or private means.

3 hours lecture.

SOC 210 * Marriage and the Family (3)

Prerequisite(s): ENG 101, concurrent enrollment, or permission of instructor; and RDG 122 or exemption.

Recommended Preparation: SOC 101, PSY 101, or ANT 102.

Courtship, mate selection, marital adjustment, parenthood and family living from sociological and psychological points of view.

3 hours lecture.

SOC 212 * Women and Men in a Changing Society (3)

Prerequisite(s): ENG 101, concurrent enrollment, or permission of instructor; and RDG 122 or exemption.

Recommended Preparation: SOC 101, PSY 101, or ANT 102.

A study of the way culture shapes and defines the positions and roles of both men and women in society. Major emphasis on social conditions which lead to sex roles and may lead to a reduction of sex-role stereotypes and to a broadening of sex roles. Also includes an analysis of the implications of potential social change.

3 hours lecture.

SOC 230 * Human Sexuality and Gender Awareness (3)

Prerequisite(s): ENG 101, concurrent enrollment, or permission of instructor; and RDG 122 or exemption.

Recommended Preparation: SOC 101, PSY 101, or ANT 102.

Study of human sexuality and gender awareness from biological, psychological, sociological, cultural, and ethical perspectives.

3 hours lecture.

SPA - SPANISH

SPA 101 * (SUN# SPA 1101) Elementary Spanish I (4)

Prerequisite(s): None.

Recommended Preparation: SPA 115 or previous experience in a second language.

An introduction to the Spanish language, its pronunciation, and its basic grammar structures. Develops the student's ability to speak, read, and write simple sentences based on personal and classroom experience, and explores a variety of topics related to Hispanic culture, history, geography, and arts.

4 hours lecture, 1 hour laboratory.

SPA 102 * (SUN# SPA 1102) Elementary Spanish II (4)

Prerequisite(s): SPA 101, one year of high school Spanish, or permission of instructor.

A continued study of the Spanish language, its pronunciation, and its basic grammar structures, with emphasis on more complex verb tenses and sentence structure. Further develops the student's ability to speak, read, and write simple sentences based on personal and classroom experience, and explores additional topics related to Hispanic culture, history, geography, and arts.

4 hours lecture, 1 hour laboratory.

SPA 115 Conversational Spanish I (3)

Prerequisite(s): None.

A beginning conversational experience in Spanish through which students build oral proficiency while increasing their awareness of Hispanic culture.

3 hours lecture.

SPA 116 Conversational Spanish II (3)

Prerequisite(s): SPA 101, SPA 115, or permission of instructor.

A beginning conversational experience in Spanish through which students continue to build oral proficiency while further increasing their awareness of Hispanic culture.

3 hours lecture.

SPA 201 * (SUN# SPA 2201) Intermediate Spanish I (4)

Prerequisite(s): SPA 102, two years of high school Spanish, or permission of instructor.

A continued study of the Spanish language, its pronunciation, and its grammar structures, with emphasis on intermediate-level verb tenses and sentence structure. Further develops the student's ability to speak, read, and write even more complex sentences based on personal and interpersonal experiences, and explores additional topics related to Hispanic culture, history, geography, and arts.

4 hours lecture, 1 hour laboratory.

SPA 202 * (SUN# SPA 2202) Intermediate Spanish II (4)

Prerequisite(s): SPA 201, three years of high school Spanish, or permission of instructor.

An exploration of Hispanic cultures presented through authentic literary works and audio-visual media with integrated practice in reading, writing, speaking, and understanding the Spanish language.

4 hours lecture, 1 hour laboratory.

SPA 215 Conversational Spanish III (3)

Prerequisite(s): SPA 102, SPA 116, or permission of instructor.

An intermediate conversational experience in Spanish through which students build oral proficiency while increasing their awareness of Hispanic culture.

3 hours lecture.

SPA 216 Conversational Spanish IV (3)

Prerequisite(s): SPA 201, SPA 215, or permission of instructor.

An intermediate conversational experience in Spanish through which students continue to build their oral proficiency while further increasing their awareness of Hispanic culture.

3 hours lecture.

SSV - SOCIAL SERVICES

SSV 120 * Introduction to Community Health Worker (3)

Prerequisite(s): None.

An introduction to public health with a focus on outreach, including health promotion, disease prevention, advocacy, health education, service referral, public health - social services integration, and development of effective communication/advocacy skills.

3 hours lecture.

SSV 224 Field Experience in Social Services (1-6)

Prerequisite(s): Permission and approval of the cooperative education program coordinator.

Recommended Preparation: Sophomore standing.

A supervised cooperative education work experience involving the combined efforts of educators and employers to accomplish career objectives in social services and related fields.

THE - Theatre Arts

THE 101 Acting I (3)

Prerequisite(s): None.

Introduction to theories of dramatic art and practice in acting situations. This course includes basic acting techniques, theatrical vocabulary and comportment, and character and script analysis.

3 hours lecture.

THE 103 * Introduction to Theatre (3)

Prerequisite(s): None.

History and tradition of western theatre with analysis and discussion of representative drama, classical to contemporary.

3 hours lecture.

THE 110 Theatre Workshop (3)

Prerequisite(s): Audition or permission of instructor.

A study of the components of the theatrical process, to include acting, directing, production design, and management. Students participate in a drama in an acting or production capacity.

2 hours lecture, 4 hours rehearsal/performance.

THE 201 Acting II (3)

Prerequisite(s): THE 101.

Exploration and application of advanced techniques of acting through physical and vocal expression, improvisation, and scene work. Emphasis on the actor's approach to characterization. Opportunity for experience in production.

3 hours lecture.

THE 220 (SUN# THE 2220) Dramatic Structure (3)

Prerequisite(s): THE 101 or permission of instructor.

Examination of the structural elements of major dramatic forms and styles. Includes reading and viewing of representative plays and analysis of their structures in relationship to modes of presentation and the resulting effects.

3 hours lecture.

UAS - Unmanned Aircraft Systems

UAS 101 Introduction to Unmanned Aircraft Systems (3)

Prerequisite(s): PFT 101.

An introduction to the fundamentals of unmanned aircraft systems (UAS), including their history and their developing role in the modern aviation industry. Topics include structural elements, avionics, flight control and guidance systems, navigation, remote sensing, and human factors. Also covers UAS integration into commercial and military airspace as well as FAA regulations and sanctions. Emphasis is on future employment in the field with a focus on commercial airspace.

3 hours lecture.

UAS 121 Remote Sensing and Imagery (3)

Prerequisite(s): UAS 101.

A study of the theory and operation of common sensors—visual spectrum, infrared, and synthetic aperture radar (SAR)—used by operators of unmanned aircraft systems. Topics include equipment acquisition and characteristics, sensor limitations and restrictions, and data analysis and image interpretation.

3 hours lecture.

UAS 201 ‡ Unmanned Aircraft Systems Pilot and Payload Operator (8)

Prerequisite(s): UAS 101 and UAS 121, or concurrent enrollment; and possession of a Private Pilot Certificate with Airplane Single Engine Land.

A practical application of the principles of unmanned aircraft systems, with an emphasis on simulated flight missions. Includes analysis of the imagery acquired during flight simulations. Focus is on future civilian applications such as search and rescue, and on aerial inspections, mapping, and photography.

4 hours lecture, 12 hours laboratory.

WLD - Welding Technology

WLD 100 ‡ Introduction to Welding (3)

Prerequisite(s): None

This course will provide students with a basic knowledge of the main welding processes. Students will acquire the knowledge to safely set up, and operate oxyacetylene torches, SMAW, GMAW and GTAW machines on ferrous and non-ferrous materials.

2 hours lecture, 3 hours laboratory.

WLD 105 ‡ Oxyacetylene Welding (3)

Prerequisite(s): None.

Safety practices, set-up and operation of oxyacetylene welding equipment. Welding in flat, horizontal and overhead positions of standard alloys of steel. Also brazing ferrous metals.

2 hours lecture, 3 hours laboratory.

WLD 106 ‡ Arc Welding (3)

Prerequisite(s): None.

Safety practices, set-up and operation of arc welding equipment. Techniques of joining metals in all positions by electric arcs with the use of the electrode.

2 hours lecture, 3 hours laboratory.

WLD 114 ‡ Welding for Metal Sculpture (3)

Prerequisite(s): None.

Focuses on basic welding processes and techniques used in the design and fabrication of metal sculptures. Team taught by welding and art faculty.

2 hours lecture, 3 hours laboratory.

WLD 128 ‡ Gas Metal Arc Welding (3)

Prerequisite(s): None.

This is a basic course in the Gas Metal Arc Welding (GMAW) process covering safety, set-up, and operation of gas metal arc welding equipment, using solid wire on various thicknesses of ferrous metal.

2 hours lecture, 3 hours laboratory.

WLD 202 Welding Survey (4)

Prerequisite(s): None.

Theory and application of all major welding processes, including parameters, advantages and limitations, equipment, health and safety; introductory welding metallurgy, weldment design and inspection, and application of SMAW, oxyacetylene, brazing, GTAW and GMAW. This is an engineering course required for manufacturing engineering, welding technology and drafting design majors. Not recommended as a general interest course.

5 hours lecture.

WLD 203 Blueprint Interpretation (3)

Prerequisite(s): None.

Recommended Preparation: Basic mathematics skills.

An introduction to the principles and procedures used to interpret structural blueprints and engineering drawings. Covers the essential concepts of blueprint formatting for structural applications and for aircraft applications. Also covers welding symbols and their specific meanings.

3 hours lecture.

WLD 209 ‡ Gas Tungsten Arc Welding (GTAW) (3)

Prerequisite(s): WLD 105 or permission of instructor.

Safety practices, set up and operation of gas tungsten arc welding (GTAW) equipment, using ferrous and non-ferrous metals.

2 hours lecture, 3 hours laboratory.

WLD 210 ‡ Advanced Shield Metal Arc Welding (3)

Prerequisite(s): WLD 105 and WLD 106, or permission of instructor.

An advanced course on the shield metal arc welding process. It covers safety, equipment care and operation, rod and current selection. Welding to include out-of-position welding of heavy steel plate to AWS certification standard.

2.5 hours lecture, 2.5 hours laboratory.

WLD 211 ‡ Pipe Fitting and Welding (3)

Prerequisite(s): WLD 210.

Fitting and welding of various sizes of pipe to AWS and API code. Students will learn to weld pipe with SMAW, GTAW and GMAW processes.

2 hours lecture, 3 hours laboratory.

WLD 212 ‡ Advanced Shield Metal Arc Welding II (3)

Prerequisite(s): WLD 210.

An advanced study of the shielded metal arc welding (SMAW) process, this course is designed to prepare students for the American Welding Society (AWS) D 1.1 Structural Steel certification test.

2 hours lecture, 3 hours laboratory.

WLD 215 ‡ Welding Design and Fabrication (3)

Prerequisite(s): WLD 105, WLD 106, and WLD 128.

A course for students with demonstrated welding skills to learn proper methods of design, layout and fabrication for welding. A specific project, selected by the student or assigned by the instructor, will use electric arc, oxyacetylene, GMAW or GTA welding.

2 hours lecture, 3 hours laboratory.

WLD 217 ‡ Pipe Layout and Fitting (3)

Prerequisite(s): WLD 211.

Continuation of WLD 211 Pipe Welding, to include methods of layout, fitting, and welding of pipe of various sizes and types.

2 hours lecture, 3 hours laboratory.

WLD 218 ‡ Advanced GTAW - Soft Metals (3)

Prerequisite(s): WLD 209.

A continuation of WLD 209 designed to develop the skills necessary to meet aerospace certification standards for aircraft. Emphasis is on advanced welding of aluminum alloys.

2 hours lecture, 3 hours laboratory.

WLD 219 ‡ Advanced GTAW - Hard Metals (3)

Prerequisite(s): WLD 209.

A continuation of WLD 209 designed to develop the skills necessary to meet aerospace certification standards for aircraft. Emphasis is on advanced welding of stainless steel and 4130 chromoly steel.

2 hours lecture, 3 hours laboratory.

WLD 220 ‡ Advanced GTAW - Exotic Metals (3)

Prerequisite(s): WLD 219.

A continuation of WLD 219 designed to develop skills necessary to meet aerospace certification standards for aircraft. Emphasis is on advanced welding application of titanium and Inconel alloys.

2 hours lecture, 3 hours laboratory.

WLD 228 ‡ Advanced Gas Metal Arc Welding (3)

Prerequisite(s): WLD 128.

This advanced course in the Gas Metal Arc Welding process is designed to train students to prepare for the American Welding Society (AWS) D1.1 Structural Steel Certification test.

2 hours lecture, 3 hours laboratory.

WLD 229 ‡ Advanced Flux-Cored Arc Welding (3)

Prerequisite(s): WLD 128 and WLD 228.

This is an advanced course in the flux-cored arc welding process which prepares the student for American Welding Society (AWS) D1.1 Structural Steel Certification.

2 hours lecture, 3 hours laboratory.

Administration

President

James Dale (J.D.) Rottweiler
University of Wyoming, B.A., M.A.
University of Utah, Ph.D.

District Administrators

Vice President for Instruction/Provost

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Smith, Jesse A. (A.A., B.A.)
Snider, Jessamyn (B.A., M.A.T., M.A.)
Sommerfeld, JoAnna (B.S., M.A.)
Sowders, Daniel (B.A., M.A.)
Speckles, Judith (B.S., M.A., Ph.D.)
Squyres, Veronica (B.A., M.A., MSHRD)
Stanger, Karina (B.F.A.)
Stern, Annamay (B.A., M.Ed.)
Stewart, Linda (B.A., B.S., M.P.A., M.Ed.)
Strebe, David (A.A., B.S.)
Suby, Beth (B.A., M.A.)
Taddei, Angela
Teran, Roxanne (B.A., M.A.)
Tewes, Connie (B.S., M.B.A.)
Theroux, Ron
Urman, Sharon (B.S., M.Ed.)
VanWesep, Peter
Vasquez, Robert
Veach, Doris (A.A., B.A.)
Velasco, Cesar (B.A.)
Vines, Joseph (B.A., M.A., Ph.D.)
Von Destinon, Mark (B.A., M.A., PhD)
Webster, Brandi
Weller, Roger (B.S., M.S)
Wells, Timothy
Westermann, John (A.A.S.)
Whaley, Jerry (A.A., B.S., M.A.)
Whipple, Rick (B.F.A.)
White, Karina (B.A.)
White, Lacretia (B.S., M.A.)
Wilcox, Tait
Williams, Barbara (B.A., M.Ed.)
Wilmot, Carinna (A.S., B.S.N., M.S.)
Wilson, Laurene (A.A, B.A., M.Ed.)
Wilson-Natal, Pearlie (A.S.N., B.S.N.)
Withee, Blair (B.A.)
Wozniak, Mary Ellen (A.A.S.)
Young, Jeanette (B.S., D.C.)
Zeller, William (B.A., M.A.)

Administrative Support Staff

Rosalia Acuna; Systems Analyst (2000)
Cochise College, A.S.

Gabriela Amavizca; Academic/Career Advisor (2011)
Cochise College, A.A.
Western New Mexico University, B.B.A.

Marisol Arenivas; Director, Residential/Student Life (2012)
Sul Ross State University, B.A., M.A., M.Ed.

Jesus Arzaga; Assistant Coach, Men's Baseball (2013)
Central Arizona College, A.G.S.
Regis University, B.A.

Tasneem Ashraf; Director, Virtual Campus (1999)
University of Punjab, Pakistan, B.S.
Quaid-I-Azam University, M.S.
University of Arizona, M.S.

Amy Baker; Academic Advisor Military Programs (2015)
Knox College, B.A.
Northern Arizona University, M.A.

James Barrows; Assistant Director, Maintenance/Operations (2012)
University of Idaho, B.S.
Naval Postgraduate School, M.S.

Ben Berry; Director, Center for Teacher Education (2003)
Northern Arizona University, B.S., M.Ed.

Byron Berry; Associate Director Facilities/Maintenance (1997)
Cochise College, A.A.

Katja Biggs; Credentials Evaluator (2011)
Bavarian State Exam, B.A.
American Public University System, M.A.

Colton Bjerke; Academic/Career Advisor (2015)
Northern Arizona University, B.S.

Mark Boggie; Assistant Dean, Student Services (2007)
University of Arizona, B.S.
University of Phoenix, M.A.

Carla Boyd, Director, Disability Services (2014)
University of Northern Arizona, B.S., M.Ed.

Belinda Burnett; Director, Aviation Programs (1988)
Cochise College, A.A.S.
Embry-Riddle Aeronautical University, B.S., M.S.

Angelita Bustamante; Academic/Career Advisor TRiO (2014)
Cochise College, A.G.S., A.B.A.
University of Arizona, B.S.

Sandy Bryan; Dean, Institutional Effectiveness (1993)
University of Arizona, B.S.
Western International University, M.B.A.

Diane Carpenter; Systems Analyst (2004)
Chemeketa Community College, A.S.

Robert Carreira; Director, Center Economic Research (2003)
Austin Peay State University, A.A.S.
St. Leo University, B.A.
Troy University, M.P.A., M.S.F.E., M.S.I.R.
Walden University, Ph.D.

Charles Carter; MOS Credentialing Coordinator (2015)
Cochise College, A.A.S.
Ashford University, B.A.

Arturo Chacon; Sonoran Student Recruiter (2001)
Instituto Technologico de Sonora, B.A.

Alicia Chaouchi, Adult Education Technology Instructor (2014)
University of Florida, B.A.
Hebrew University of Jerusalem, M.A.
University of Arizona, M.A.

Debbie Chavez; Database Administrator (1994)
Cochise College, A.A.

Marguerite Conners; Student Success Manager (1996)
Northern Arizona University, B.S., M.Ed.

Brad Dale; Adult Education Instructor (2015)
Cochise College, A.G.S.
University of Phoenix, B.S.

Karen Dale; Director, Continuous Improvement (2014)
University of Arizona South, B.S.
Capella University, M.S.

Joanne Darbee; Cooperative Education Academic/Career Counselor (1996)
State University of New York, B.A.
University of Arizona, M.A.

Andi DeBellis; Student Government Advisor/Activities Manager and Recruiter (2014)
Georgetown University, B.S.

Randy Denney; Director, Occupational Health/Safety (2013)
Olivet College, B.A.

Rebecca Dorman; Writing Lab Coordinator (1998)
Northern Arizona University, B.S.

Mark Dottle; Director, Fort Huachuca (2004)
Cochise College, A.G.S.
Western International University, B.A.

Rhonda Douglas; K-12 Technical Preparation Specialist (1996)
Cochise College, A.A.S.

Cossetti Durazo; Accountant (2009)
Cochise College, A.B.A.
Western International University, B.S.A.

Frank Dykstra; Executive Director, Facilities Management/Planning (1989)
West Texas State University, B.S.

Shelli Echave; Director, Administrative Computing (1996)
Southern Arkansas University, A.A.S.

Karen Emmer; Director, Financial Aid (2010)
Weber State University, B.S.
Colorado State University, M.Ed.

Lourdes Estrada; Director, Procurement Services (2009)
Cochise College, A.A.

Melissa Faglie; Academic/Career Counselor (2007)
Cochise College, A.A.
Sul Ross State University, B.A., M.Ed.

Alexandra Felton, Librarian (2011)
California State University, B.A.
Simmons College, M.L.I.S.

Anita Franklin; Bursar (1997)

Charles Frisco; Coach, Women's Soccer (2013)
Wichita State University, B.F.A., M.F.A.

David Gage; Director, Finance/Controller (1995)
Taft College, A.A.
University of Arizona, B.S.

Gabriel Galindo; Academic/Career Advisor Nogales (2013)
University of Phoenix, B.S.

Yvonne Gauch; Academic/Career Advisor (2010)
Broward Community College, A.A.
Florida Atlantic University, B.A.

Candace Gilles-Brown; Teacher, Adult Education (2005)
University of Minnesota, B.A.

Sharon Gilman; Director, Center Lifelong Learning (2008)
St. Edward's University, B.A.
Texas State University, M.P.A.

Cynthia Gobel; Assistant Director, Finance (1983)
Cochise College, A.G.S.

Sheri Gonzalez; Payroll Manager (2007)
Art Institute of Pittsburgh, A.S.

Jennifer Graeme; Director, Talent Management (2013)
New Mexico State University, B.A.

James Hall; Dean, Student Services (1983)
Cochise College, A.A.
Grand Canyon College, B.A.
University of Arizona, M.Ed., Ed.D.

Lisa Hauser; Academic/Career Advisor (2014)
Cochise College, A.G.S.
Wayland Baptist University, B.S.

Bryan Homrighausen; Academic/Career Counselor (2014)
Colorado Christian University, B.A.
Northern Arizona University, M.Ed.

Tabitha Hopper; Academic/Career Counselor (2014)
University of Arizona, B.S.
Grand Canyon University, M.S.

Charles Hoyack; Dean, Liberal Arts (1988)
University of Arizona, B.A.
Northern Arizona University, M.Ed.

Denise Hoyos; Executive Director, Foundation/External Affairs (2001)
Indiana University of Pennsylvania, B.A.
Western International University, M.B.A.

Ron Hyde; Technology Support Coordinator (2008)
Cochise College, A.A.S.

Lamar Innes; Assistant Athletic Trainer (2014)
Brigham Young University, B.S.
California Baptist University, M.S.

Josefa Jacques; Academic/Career Advisor (2003)
Northern Arizona University, B.S.

Celia Jenkins; STEM Pathway Coordinator (2013)
University of Tennessee, B.S.

Star Jermyn; Assistant Director, Nursing (1997)
Thomas Jefferson University, B.S.N.
University of Phoenix, M.S.N.

Matteus Johnson; Assistant Coach Women's Soccer (2015)
University of Minnesota, B.A.
University of Northern Colorado, M.A.

Hannah Jones; Science Lab Coordinator (2012)
Cochise College, A.A., A.S.
University of Arizona, B.S.

Kelly Juvera; Nursing Lab Assistant/CNA Instructor (2013)
Cochise College, A.G.S., A.A.S.

Beth Krueger, Dean, Math, Science and Health Sciences (2014)
University of Tampa, B.S.
University of Rochester, M.S.
University of Texas – Austin, Ph.D.

Jennifer Lakosil, Director, Nursing/Allied Health (2006)
University of Arizona, B.S.N.
University of Texas Medical Branch, P.N.P.
University of Phoenix, M.S.N.

Michelle Landis; Controller (2014)
Arizona State University, B.S.

Lizabeth Lillard; Academic/Career Advisor (2001)
Community College of Denver, A.A.
Metro State College, B.S.

Tom Lehr; Student Success Coach (2013)
University of Wisconsin, B.S.
United States International University, M.A.

Elizabeth Manring; Public Information Officer (2011)
University of Missouri, B.J.

Robyn Martin; Director, Marketing & Communications (2015)
Art Institute of Seattle, A.A.
University of Maryland University College, B.A.
American Public University System, M.B.A.

Rosa McPherson; K-12 Student Support Specialist (2005)
Universidad de Sonora, B.S.
El Colegio de Sonora, M.S.

Cheryl Mead; Testing Services Specialist (2005)
Cochise College, A.A., A.S.
University of Arizona, B.A.

Joshua Meeker; EMS Program Coordinator (2013)
Cochise College, A.G.S., A.A.S.
Grand Canyon University, B.S.

Maina Mentz; Web Administrator (2009)
Brookdale Community College, A.S.
Rutgers University, B.S.

Guy Meyer; Assistant Coach, Men's Basketball (2011)
Fort Lewis College, B.A.
New Mexico Highlands University, M.A.

Angela Moreno; K-12 Outreach Specialist (2009)
Northern Arizona University, B.S.
Grand Canyon University, M.Ed.

Lenore Morrell; Database Administrator (2005)
University of Phoenix, B.S.

Susan Morss; Director, Adult Education (2012)
Beloit College, B.A.
Eastern New Mexico University, M.E.

Robert Mucci; Business Analyst (2011)
University of Michigan, B.S.
University of Utah, M.P.A.

Diane Nadeau; Curriculum Coordinator (2002)
Rivier College, B.A.
Middlebury College, M.A.
Boston University, Ph.D.

Tracey Neese; Systems Analyst (1997)
Cochise College, A.A.S., A.G.S.

H. Sue Neilsen; Director, Nogales Center (2003)
University of Arizona, B.A., M.Ed.

Linda Nichols; Benefits Manager (2015)
Northern Arizona University, B.S.

James Nosek; Program Director, Respiratory Therapy (2012)
College of the Desert, A.A.
California State University, B.A.

Marisela Nunez; Director, Correctional Education (2014)
University of Arizona, B.S.
Cochise College, A.A.

Tetima Parnprome; Librarian (2009)
University of Southern California, B.S.
Simmons College, M.L.S.

Gilbert Parra; Director, Network/Enterprise Services (1994)
Cochise College, A.A.S.
University of Phoenix, B.S.

Philip Patton; Instructional Media Services Manager (1989)
Cochise College, A.A.S.

Nancy Potenza; Adult Education Teacher (2008)
University of Arizona, B.A.

Holly Prince; Credentials Evaluator (2006)
Cochise College, A.A.

Stacy Putz; Credentials Evaluator (2015)
California State University, B.A.
American Public University, M.Ed.

Debra Quick; Registrar/Director, Admissions (1997)
Austin Peay State University, A.A.S., B.S.

Oscar Ramirez; Data Analyst (2009)
Cochise College, A.BUS. A.A.
University of Arizona, B.S.

Tonya Randolph; Academic/Career Advisor CTEPS (2010)
University of Arizona, B.S., M.S.

Renee Rhodehamel; Academic Support Coordinator (2008)
Arizona State University, B.A.

Barbara Richardson; Director, Benson Center (2010)
Wayland Baptist University, B.S.O.E., M.B.A.

Bruce Richardson; Dean, Business and Technology (2002)
New Hampshire College, B.S., M.B.A.

Keith Ringey; Print Services Coordinator (2007)

Nanette Romo; Director, Counseling and Advising (2004)
Cochise College, A.G.S.
Western New Mexico University, B.S., M.A.

Adela Sanchez; Clinical Coordinator Respiratory Therapy (2014)
Pima Medical Institute, B.S., A.A.S.

Nicolas Santos; Athletic Trainer (2013)
Seton Hall University, M.S.
California State University East Bay, B.S.

Gary Schasteen; Professional Tutor/Instructor (2013)
Pierce Community College, A.A.
Pacific Lutheran University, B.S.
University of Washington, M.S.

Mark Schmitt; Director, Small Business Development Center (2008)
University of South Dakota, B.S.
University of Phoenix, M.B.A.

George Self; Dean, Extended Learning (2000)
Missouri Valley College, B.S.
Troy State University, M.S.

Irene Semeniuk; Research Programmer Analyst (2008)
William Paterson University, B.A.

Colin Shannon; Recruiter/Academic Advisor (2012)
Eastern Michigan University, B.S.

Jennifer Shiver; Academic Advisor Military Programs (2000)
Cochise College, A.A.G.S.
Wayland Baptist University, B.S.

Ana Smith; Lifelong Learning Program Coordinator (2009)
Excelsior College, B.S.
University of Nebraska, M.P.A.

Lynn Smith; Assistant Coach, Rodeo (2012)
Central Wyoming College, A.A.

Debra Soto; Business Analyst (2015)
Cochise College, A.G.S.
Western International University, B.S.

Eric Stiemert; Math Lab Coordinator (2007)
Cochise College, A.S.
Northern Arizona University, B.S.

Elizabeth Stoddard; Aviation Marketing/Recruitment Specialist (2014)
City University of Seattle, B.S., M.B.A.

Stephanie Thomas; Instructional Designer (2014)
University of Arizona, B.S.
University of Phoenix, M.A., M.A.

Sharon Townsend; Director, Testing Services (2000)
West Virginia State College, B.S.

Frank Villaseñor; IT Systems Administrator (1998)
Cochise College, A.A.
Phoenix Institute of Technology, A.A.
University of Phoenix, B.S.

Jennifer Wantz; Facilities/Events Coordinator (2009)
Niagara County Community College, A.A.
University of Buffalo, B.A., Ed.M.

John Walsh; Director, Library Services (2005)
University of Arizona, B.S., M.L.S., Ph.D.

Daviyonne Weathersby; Assistant Coach, Women's Basketball (2013)
California State University, B.S.

Richard Whipple; Graphics Designer (2006)
Miami University, B.F.A.

Adam Woodrow; Assistant Director, Virtual Campus (2011)
Indiana University of Pennsylvania, B.A. M.A.

Debra Wright; Science Lab Manager (1989)
Northern Arizona University, B.S.

Classified Staff

Manuel Acedo
Diana Acosta
Marvin Alexander
Sally Aparicio
Armando Arevalo
Javier Armenta
Heather Augenstein
Nicholas Beach-Moschetti
Leanne Bennett
Eugene Bernal
Mark Berumen
Rosa Berumen
Victoria Bettencourt
Lawrence Bingham
Michael Bowen
Tammy Brewer
Duke Burford
Jael Calia
Kathleen Carrillo
William Cassidy
Melissa Cepero
Richard Chavez
Mandee Clay
Irma Cook
Matthew Crabb
Janet Cramer
Leticia Cuevas
Kathy Curtis
Daniel Del Rio
Lydia DeYoung
Diana Dominguez
Laurie Donoian
Duane Dugie
Mollie Edson
Edna Elias
Juan Espinoza
Joel Evans
Jennifer Figueroa
Mary Fogleman
Martin Fuentes
Shannon Gahn
David Garcia
Karolyn Garcia
Donovan Gibson
Art Gillette
Tom Gomez
Adam Gonzalez
Luis Grijalva
Michele Helm
Robert Henderson
Crystal Hernandez
Deidra Hilton
Rebecca Horlick
Bridjett Huish
Ronald Hyde
Mario Ibarra
Angela Jackson
William Jackson
Janet Johnson
Anita Johnstun
Bifford July
Amanda Kelly
Cora Kramm
Javier L. Lafon
Helen Lehman
Laura Lengel
William Leyland
Patricia Leyva
Sonia Leyva
Nick Louviere
Maria Mabante
Matthew Macoviak
Javier Madero
Stella Martin
Joe Mejia
Julio Melgoza
Laura Mendoza
Joy Miller
Rita Miller
David Minor
Randi Minor
Maureen Mitzner
Anna Molina
Pete Molina
Carmen Morales
Lupita Morales
Eddie Moreno
Elma Mossor
Loretta Mountjoy
Dawn Neutzel
Erin Nevarez
Rachel Norton
Brian O'Brien
Jamie O'Rourke
Rosa Ortega
Catalina Ortiz
Sonila Ortiz
Teresa Ortiz
Darla Parker
Edgardo Pedrego
Luis Peralta
Jack Petty
Kimberly Petty

Sylvia Prado
Phillip Quinonez
Thomas Ralls
Tina Ratliff
Margaret Reilly
Ryan Richardson
Carol Riggs
Sandra Rosales
Teresa Rotarius
Katherine Rousseau
Raymond Rousseau
Iris Routhieaux
Karly Scarbrough
Jennifer Scherr
Sheila Selby
Maria Skinner
Dudley Smith
Jose Sodari
J. Charles Sproule
Rebecca Sproule
Coleen Thrasher
Kathy Waters
Daniel Wetstein
Jennifer Wilson
Juliet Wimp
Juan Zozaya

Financial Aid, Scholarships & Grants

Students applying for financial aid at Cochise College must be admitted into an eligible program of study leading to a degree or certificate and must meet the other eligibility requirements for each program. All new financial aid recipients must complete a financial aid orientation session before receiving any federal funds.

Official academic transcripts will be required of all transfer students who appear in the National Student Loan Database System (NSLDS) as having attended previous institution(s) and/or having substantial student loan debt. Transcripts will be evaluated and restricted enrollment enforced when applicable. Students who have not met our academic standards (2.0 GPA and completion of 75 percent of classes attempted) at the prior institution(s) will be evaluated with the same probation and suspension standards currently in place for Cochise College students. Students who consistently have received W and F grades will be required to complete a minimum of six credit hours with a 2.0 or higher GPA using their own resources before federal aid will be approved.

Cochise College provides access to federal, state, and institutional financial aid through the Financial Aid Office. A number of institutional and private scholarship applications are also available. Financial aid may be awarded based on financial need, academic merit, athletic ability, or community service. The application process for most of the programs begins with completion of the Free Application for Federal Student Aid (FAFSA). The FAFSA is completed online at www.FAFSA.gov. The FAFSA worksheet to assist you in completing the online application can be found online or in the Financial Aid Office. Priority consideration for some grants is given to applications received in the Financial Aid Office by May 1.

Federal Aid Programs

Pell Grants

A federal Pell Grant, unlike a loan, does not have to be repaid. It is restricted to undergraduate students. Eligibility is established by the federal government, and the grant is targeted to students with high need. The award adjusts to the actual enrollment status. Students never attending a course or withdrawing from all of their courses could face repayment of all received Pell Grant monies.

Federal Direct Loans (Stafford Loans)

Low-interest student loans are available to help meet educational expenses. The loans must be repaid. Students must be enrolled in a minimum of six credit hours during a term (including eight-week terms) to be eligible. Loans can also be obtained by students who do not demonstrate a need. A student must complete the loan entrance counseling, master promissory note and the direct loan request form before a student loan will be certified.

College Work-Study

The work-study program offers students an opportunity to work up to 16 hours per week to assist with college expenses. Many of these jobs are career related and offer flexible work schedules. Students must be enrolled at least half-time, have a 2.0 GPA and maintain Satisfactory Progress to qualify for these jobs. Work-study jobs are available both on and off campus. If you are interested in student employment, check the available jobs at the Human Resource Office.

Veterans Affairs

The Veterans Affairs Office is located within the Financial Aid Office on the Sierra Vista Campus. Information concerning attendance, benefits and procedures is available. All veterans are advised to maintain close contact with the college's certifying official.

If you are a veteran receiving VA benefits, you are required to immediately report to the college's certifying official when you drop a course or withdraw from college. Dropping or reducing enrollment may result in an overpayment of benefits to the VA and you may be required to repay all the money you received during that semester/term.

Veterans at Cochise College may register and have their tuition payments waived until they receive their benefit payments, or tuition is paid by the VA. If veteran students enroll and do not notify the VA Office the day they enroll, they may be dropped for non-payment of tuition. The student is responsible for payment of all tuition and fees, regardless of payments received from the VA.

Scholarships

Scholarships are offered by the Cochise College Foundation each year. These scholarships are funded by private donors. Financial need, grade point average, field of study, leadership, and community service are some of the eligibility requirements. The scholarship application can be accessed on the college website at www.cochise.edu/fa.

Applications are accepted early in the spring semester for scholarships to be awarded for the following academic year that begins with the fall semester. Notices of other scholarships are received periodically. The notices, applications and/or instructions for these scholarships are posted in the scholarship notebooks located in the Financial Aid offices.

Services for Students

Libraries/Instructional Media Services

The Cochise College Library/IMS system consists of the Charles Di Peso Library on the Douglas Campus and the Andrea Cracchiolo Library on the Sierra Vista Campus. Many library services and resources are also available online at www.cochise.edu/library.

The libraries house an academic collection of more than 74,000 books and periodicals and more than 8,600 media items, including audiobooks, music CDs and DVDs. They also offer a variety of databases that provide access to more than 10,000 magazines and academic journals. The libraries' e-book collection contains over 37,000 titles covering a broad range of subject areas. The digital database, Films on Demand, provides streaming access to thousands of educational videos. Each library also has photocopiers, computers and laptops for student access.

The Instructional Media Services (IMS) department provides a wide range of instructional media equipment and software for classroom use and for college events. IMS also manages the interactive instructional television (ITV) classrooms for the district.

The Library/IMS staff is dedicated to enhancing learning opportunities, increasing information literacy, and meeting the educational needs of Cochise College students, faculty, staff and the general public. The libraries combine traditional library services with information technologies to assist students in successfully navigating the expanding world of information.

Bookstore

Barnes and Noble bookstores are located on both the Douglas and Sierra Vista campuses. A bookstore representative also visits the Benson, Willcox and Santa Cruz centers at the beginning of each semester. Students can find textbooks, collegiate clothing, reference and trade books, classroom supplies and other items. Book rental and digital options also are available. Student book buy-backs are held each semester during finals week if there is a demand for the books the following year. Graduation gowns also may be ordered in February for May graduates.

Student Development Center

The Student Development Centers (SDC), located on the Douglas and Sierra Vista campuses, coordinate several key services designed to support learning: academic advising, counseling, testing, tutoring, and career information/co-op learning.

Counselors and advisors assist students in defining, planning and achieving success. This collaborative effort results in the students' taking responsibility for the attainment of their educational, personal, social and career goals.

The Cochise College counseling staff is available in the SDC to assist you in developing decision-making skills and personal strengths that allow you to help yourself. Problems of adjustment related to academic, personal or social areas are not unusual. Counselors are available to assist you during regular business hours.

Counselors and advisors can assist you in defining your educational and career goals; planning a program of study for transfer and/or direct employment that incorporates your interests, abilities and career objectives; and can direct you to other college resources.

A coordinated effort by Cochise College counselors and advisors provides all students with assistance throughout their academic experience. Students are encouraged to visit with an academic advisor or counselor to establish a course of study, ensure progress toward completion and receive academic support prior to having problems with class work or schedules.

Learning Support (Tutoring)

Cochise College provides free tutoring in most academic areas. Para-professionals, faculty and staff work with students individually and in small groups to facilitate learning. Online tutoring services are also available. Students are welcome to drop by the tutoring labs with or without an appointment.

Placement Assessment

Initial placement assessments are free to students during the academic year. Cochise College uses Accuplacer for placement assessments. Students can make an appointment for placement testing with the campus testing office or center of your choice. Visit the Testing Center webpage at www.cochise.edu/testing.

The purpose of the Cochise College assessment process is to:

1. Help correctly identify existing skills and knowledge in reading, English and mathematics.
2. Recommend a course(s) of study in which you may reasonably expect to achieve academic success.

The college requires students to take the placement assessment using the Accuplacer test in the areas of English, reading and mathematics prior to meeting with an advisor and registering. You should test if you are:

- Planning to register for a course with an English or mathematics prerequisite.
- Seeking a degree/certificate that requires English, reading or mathematics courses.

Placement assessment may be waived under the following conditions:

- If you provide a transcript or diploma showing completion of an accredited associate or higher degree with completed prerequisite coursework
- If you are a transfer student whose official transcripts show completed coursework in a corresponding subject with a grade of C or higher
- Submit current (two years or less) SAT, ACT, ASSET, and COMPASS scores for course placement consideration

The advisor will use information (e.g., transcripts, assessment results and other evaluative data) to place you in courses consistent with your level of preparation. If you are a student studying at a distance, contact your academic advisor for information concerning off site placement testing.

Students who request entrance to a course for which they do not meet the established academic skill prerequisites may request a waiver of advice under college Policy 3004.

CTEPS/Career Technical Education Program

The CTEPS program offers a variety of support services to students enrolled in career and technical education programs. Students in specific certificate and degree programs are supported with the following services: academic advising, advocacy, encouragement in career exploration if needed, limited fuel assistance, referrals to local resources, and assistance to search for scholarships. To find out more, visit the CTEPS office on the Douglas Campus, located in the MISSL Lab, or the Sierra Vista Campus, located in the Student Union Counseling/Advising Office. Appointments can be made for Benson and Willcox centers for CTEPS support.

Office of Disability Services

In the spirit of the Americans with Disabilities Act of 1990, Cochise College provides support services to students who may need reasonable accommodation or adjustment in order to achieve academic success. Our mission is to assist students in discovering and developing their full potential.

To be eligible to receive an accommodation from Disability Services, a student must be enrolled in Cochise College and have a mental or physical impairment that substantially limits a major life activity. The disability must be verified by appropriate documentation, which means a professional in the area of the disability must document the nature and severity of the disability. Professionals may include medical doctors, psychiatrists, psychologists, and learning specialists. An appointment must then be made with the Director of Disability Services for the student to complete the intake forms necessary to request services and accommodations. For more information, visit the Disabilities Services website at www.cochise.edu/disability.

To request services from the Office of Disability Services, call (800) 966-7943 or go to www.cochise.edu/disability.

TRiO Student Support Services

Cochise College TRiO Student Support Services (SSS) program is one of three TRiO programs originally funded under the Higher Education Act of 1965, whose objective is to help students overcome class, social and cultural barriers to complete their college education. Funded by the U.S. Department of Education, SSS is committed to helping low-income, first-generation college students, and students with disabilities, achieve a bachelor's degree. Services are provided at no cost to the students. To qualify, students must be: enrolled or accepted for full-time enrollment at Cochise College; U.S. citizens and/or legal/permanent residents (meet federal financial aid residency requirements); and have a need for academic support and meet at least one of the following guidelines:

- First-generation college student (parents or guardian did not receive a bachelor's degree)
- Low-income student as established by the Department of Education
- Learning or physically disabled student (registered with the ADA/Disability Office)

Participants are eligible to:

- Attend cultural events on and off campus at a reduced or no cost to the student
- Receive tutoring on an individual basis from professional and/or peer tutors
- Receive end-of-the-year grant aid (must be eligible)
- Visit four-year colleges
- Attend TRiO workshops on including: financial literacy; academic tutoring; advice and assistance in postsecondary course selection; assistance with information on locating public and private scholarships; and assistance with applying for admission to, and obtaining financial assistance for enrollment in four-year programs.
- Receive monthly newsletters and weekly emails
- Participate in a mentoring program

For more information, visit the TRiO website at my.cochise.edu/web/trio/home or call the TRiO Student Support Services office on the Douglas Campus.

Career and Cooperative Education (CCE)

The Career and Cooperative Education office offers services designed to assist students in exploring career and future employment options with the goal of supporting them in choosing academic paths that meet their interests and needs. Career counseling services include help with career exploration, personality and interest assessment, and career information on specific majors and occupations. The Cooperative Education program offers opportunities to students for practical learning experiences to enhance skill development. Students earn college credit for these field experiences.

Cooperative Education/Internship Experiences

The cooperative education (co-op) program provides opportunities for students to supplement coursework with practical work experiences related to their career objectives. Faculty advisors related to the student's program of study are assigned to mentor each student. Students earn academic credit for their participation at an outside work site by setting and completing learning objectives or projects that expand their knowledge of their field. The credits earned can fulfill requirements for the student's program of study or can be used as electives, depending upon the college major selected by the student. Co-op credits also serve to document career-related experience when students apply for admission to specific or competitive majors or programs at the university level. For more information, contact the Career and Cooperative Education office on either the Sierra Vista or Douglas campus.

Career Exploration/Career Information

Students seeking information on various careers or occupations, or those desiring to take an inventory of their interests in order to establish career goals, can meet one-on-one with a career counselor who is certified in the use of various career assessment tools, including the Strong Interest Inventory and the Myers Briggs Type Indicator (MBTI). In addition, a variety of software and print resources are available to students for more detailed descriptions about career fields of interest, as well as information on the projected hiring outlook, salary data, and education or training requirements for specific occupations.

Student Activities

The college encourages participation in extracurricular activities, which include community service, civic engagement and campus organizations that promote leadership, student relationships and social development. Most campus activities are the responsibility of student clubs and organizations. A full schedule of activities is planned for the student body by the student government and various clubs and organizations. For more information, visit www.cochise.edu/activities.

Student Government

You are encouraged to take an active part in your Student Government Association. Weekly meetings are open to all students. Student Government is established on both the Sierra Vista and Douglas campuses. At each campus, SGA is comprised of five appointed officers: president, vice president, secretary, treasurer and social events coordinator, who are selected based on an application process each spring. Student government plans, coordinates, promotes and finances a varied program of student activities and services for the entire student body.

Clubs and Organizations

Student clubs and organizations attempt to meet special student needs and interests. Students with similar interests may form a club in which fellow students can participate in specialized activities. For more information on Cochise College clubs and organizations, visit www.cochise.edu/clubs.

Athletics: Douglas Campus

Hundreds of student athletes have gotten their start at Cochise College. The institution serves as a springboard for those who wish to compete, obtain a quality education and transfer to a four-year program. Athletes compete in baseball, men's and women's basketball, men's and women's rodeo and women's soccer. The athletic programs reside on the Douglas Campus, where several acres are dedicated to athletic facilities. Residence halls are available to student athletes.

The general coaching philosophy incorporates both athletic and academic success. Small classes and one-on-one student/teacher interaction assures students a great educational start. Tutoring is available for students who need assistance. Some scholarships are available. Cochise is a Division 1 National Junior College Athletic Association school and a member of the National Intercollegiate Rodeo Association.

The school colors are red and white, and the mascot is the Apaches. The center for intercollegiate activity is the Apache Stronghold Gymnasium. The school mascot and gymnasium are named for legendary chief Cochise of the Chiricahua Apaches.

Residence Halls: Douglas Campus

Housing and Dining

The on-campus living program is designed to encourage personal growth and development. The standards of behavior established by the department of housing and student life are intended to comply with and help maintain the academic environment of the college. All full-time, unmarried students are encouraged to reside on campus.

Housing and dining services are combined and all residential students are automatically on the meal plan. Food service is 18 meals per week serving three meals per day Monday through Thursday and two meals per day on Friday, Saturday, Sunday and holidays.

There is no food service during Thanksgiving Recess and Spring Break.

Regulations

Each resident must sign a residence hall contract agreeing to all the terms and conditions of occupancy. On-campus residents are expected to comply with applicable rules and regulations as they appear in the residence hall and married housing contracts and the student handbook as well as local, state and federal laws.

Apartments

The college offers a limited number of furnished, one-bedroom married-housing units. Prospective occupants must provide proof of marriage before applications will be considered.

Housing Applications

If you are interested in on-campus housing, you are encouraged to apply early, preferably at least 60 to 90 days before the academic term begins. Housing applications cannot be processed unless you have applied for admission to the college. Interested applicants may contact the Housing Office, Cochise College, 4190 W. Hwy. 80, Douglas, AZ 85607-6190, or call (520) 417-4062. Housing applications are also available online at www.cochise.edu/housing.

Campus Crime Report/Alcohol-Free Workplace

According to federal statute and regulations, colleges and universities are required to prepare and distribute each year an annual security report. The Campus SaVE Act details those reporting requirements. Within the report, colleges must set forth their policies on crime prevention and sex offenses and give statistics on the number of crimes reported on campus. Other reported crimes include the number of arrests for liquor law and/or drug violations and weapons possessions. The crime report is updated each September; the drug and alcohol free workplace report is updated each April. The reports may be reviewed at www.cochise.edu/securityemergency.

Beginning in the 2014-15 school year under the Violence Against Women Act (VAWA, 1994), colleges are required to provide "primary prevention and awareness programs" for all incoming students, as well as ongoing prevention and awareness campaigns. For more information, contact the Vice President of Human Resources or the Dean of Student Services.

Smoking Policy

Smoking is not permitted in any building or classroom at Cochise College. Designated smoking areas may be used outside of buildings on each campus and at each center. For locations of designated smoking areas, contact campus security or the Dean of Student Services.

Alcohol and Drug Abuse Policy

Cochise College is committed to the prevention of alcohol and drug abuse, recognizing that the abuse of alcohol or other drugs poses serious risks to a person's health. Cochise College conforms with and supports all federal, state, and local laws and regulations that prohibit the unlawful manufacture, distribution, dispensation, possession, or use of alcohol or any prohibited or controlled substance on any campus of the college.

Students registered at Cochise College assume an obligation to conduct themselves in a manner compatible with the college's function as an educational institution and are expected to exercise personal responsibility and make informed choices concerning the use and misuse of alcohol and illicit drugs.

Cochise College will impose disciplinary sanctions that include, but are not limited to, verbal or written reprimands, disciplinary probation, removal from classes, suspension, expulsion, or possible referral to local, state, or federal law enforcement agencies, for any unlawful on-campus manufacture, distribution, use, or possession of alcohol or any prohibited controlled substance.

Sexual Harassment

Cochise College expressly forbids sexual harassment, including sexual discrimination, of its employees and students by supervisors, other employees, students or the general public. Behaviors considered to be sexual harassment include: unwanted physical touching (beyond normal greeting); sexual molesting; verbal insults; and sexually explicit suggestions or rumors designed to cause emotional distress, place an individual in bad light, substantially interfere with an individual's work or study performance, or create an intimidating, hostile, or offensive work or study environment.

Any persons who feel that they have been victims of sexual harassment may make a formal complaint to an immediate supervisor, the Vice President of Human Resources, or the Dean of Student Services. All such complaints will be treated in a confidential manner and will be investigated thoroughly and promptly. If the complaints are not resolved, persons believing themselves victimized by such alleged sexual harassment are free to pursue other administrative or judicial remedies available, including the pursuit of their rights under Title IX of the Education Amendments of 1972, through the Vice President of Human Resources and affirmative action or the Dean of Student Services.

Beginning in the 2014-15 school year under the Violence Against Women Act (VAWA, 1994), colleges are required to provide "primary prevention and awareness programs" for all incoming students, as well as ongoing prevention and awareness campaigns. For more information, contact the Vice President of Human Resources or the Dean of Student Services.

Special Programs

Center for Lifelong Learning

The Cochise College Center for Lifelong Learning (CLL) offers non-credit classes in Sierra Vista, Douglas, Benson, Bisbee, Nogales and Willcox, plus more than 400 online courses and certification programs through ed2go and U Got Class at www.cochise.edu/cll. Tailored training solutions are offered to businesses and organizations at customer sites or in a classroom.

Honors Program

The Cochise College Honors Program fosters the lifelong love of scholarly inquiry, open-mindedness and independent thinking. The philosophy of the program is to enrich the collegial experience, providing intellectual challenge and stimulation for motivated, creative and academically talented students and faculty. Students who complete 16 credits of honors coursework earn an Honors Distinction on their Cochise College diplomas, transcripts and the commencement program. For more information, visit www.cochise.edu/honors.

Education for Underprepared Students

All new students should take the college placement test prior to registration in order to determine their skill levels in reading, writing and mathematics. Students will receive assistance from an advisor in selecting the courses needed to prepare them for college-level work.

If your placement scores indicate the need to enhance your skills in the areas of reading, writing or mathematics, you will be placed in the appropriate college prep courses. Students with gaps in their academic backgrounds or who have grown rusty in one or more of these areas will find the college prep courses are designed to bring basic skills up to the necessary level for optimum college performance.

College prep courses are numbered 099 and below. Although these courses count toward meeting full-time status for financial aid purposes, college prep courses cannot be used to meet graduation requirements. The college offers a variety of services to help students, including tutoring, career planning and counseling. For more information visit the Student Development Center.

Learning Communities

Learning communities bring together different academic disciplines and teach students how they are related. Instructors involved in these communities restructure their curriculum thematically to link courses with an instructor from another discipline. These classes foster community, coherence and connections among courses. Learning communities increase student engagement and motivation, increase intellectual development, increase course completion rates and contribute to faculty and staff development.

Cultural Events

Cochise College brings concerts and artists to communities and schools throughout Cochise and Santa Cruz counties. Additionally, seminars, workshops, films and lectures on local history and various art topics are scheduled each semester.

Dual Enrollment

High school students taking certain academic and/or career and technical education classes in high school can earn college credit. These courses count for credit at both the high school and at Cochise College. Contact your high school counselor or the Cochise College K-12 Outreach Department for a list of courses that meet dual enrollment guidelines and for more information about this program. You can also find more information at www.cochise.edu/highschool.

Adult Education

Cochise College Adult Education helps adult learners (ages 16 and over) acquire the knowledge and skills necessary to enter the workforce or continue their education (College and Career Ready). Academic, technology and communication skills are the focus. Classes provide instruction for high school equivalency test preparation or English language acquisition for non-native speakers.

- English Language Acquisition classes, for speakers of other languages, focus on reading, writing, speaking and understanding English.
- Basic skills classes serve as a refresher course in reading, writing, and math.
- GED classes prepare students to pass the GED exam.
- A distance learning study option is available.
- Computer skills classes are also available for students enrolled in another Adult Education class.
- Transition planning for entry into post-secondary training, college, and career is a priority of the program.

All Adult Education classes are small, individualized, and centered on student goals. Classes are held on Cochise College campuses in Sierra Vista, Douglas, Benson and Willcox. There is a fee on a sliding scale based on income.

Small Business Development Center

The Cochise College Small Business Development Center (SBDC) is one of 28 locations within the Arizona Small Business Development Center Network. Started in 1988, the AZSBDC Network is a partnership between the state's community college districts, the Microbusiness Advancement Center in Tucson and the U.S. Small Business Administration (SBA). It is fully accredited by the Association of Small Business Development Centers.

Cochise College's Small Business Development Center provides access to professional business counselors, analysts and technology specialists. Partnerships with the SBA and the Association of Small Business Development Centers puts nationwide resources within small business owners' reach.

The SBDC provides free, one-on-one business counseling, planning assistance, technology development and identifying sources of capital are only some of the services that we provide. It also has special initiatives in veterans assistance, clean technology and government contracting. Call (520) 515-5478 for more information or to set up a confidential counseling session.

Center for Economic Research

The Cochise College Center for Economic Research (CER), founded in 1995, provides economic information, analysis, and forecasting to help leaders in the public, private, and nonprofit sectors make informed decisions; provides opportunities for Cochise College students to conduct and publish research on local and regional economic issues; and educates residents of Cochise County on the local, state, and national economy through public presentations, newspaper columns, radio show appearances, and social media networking.

Throughout the year, the CER responds to a wide range of information requests from business and community leaders throughout Cochise County and across the state, region, and nation. The CER director serves on community projects, committees, and task forces providing technical expertise in research methodology and serving as a source of economic and demographic information, analysis, and forecasting. The CER prepares weekly press releases that are published in newspapers countywide and provide insight into economic issues affecting Cochise County. The CER maintains an official Facebook page providing updates on the local, state, and national economies.

The CER has economic advisory committees in Benson, Bisbee, Douglas, and Sierra Vista. These committees include representatives from various sectors of the local economy who provide advice, expertise, and input to the content of the economic outlook publications and luncheon presentations. They also serve as focus groups for the study of the qualitative aspects of the local economy and provide specialized expertise related to the organizations and industries they represent.

The CER is a member of the Association for University Business and Economic Research (AUBER), the only community college organization in the nation holding membership. In addition, the CER is a state data center affiliate, receiving and disseminating U.S. Census Bureau data to local governments and nongovernmental data users at no charge or on a cost-recovery or reimbursable basis.

K-12 Outreach

In addition to coordinating the college's Dual Enrollment and Reverse Credit programs with local high schools, the office of K-12 Outreach develops programs designed to enrich K-12 student learning experiences and supports the college's STEM (Science, Technology, Engineering and Math) Pathway Initiatives for students at Cochise County elementary, middle and high schools. K-12 Outreach strives to provide creative, fun, real-world activities and programs that promote student success in both the STEM pathway and higher education as a whole.

Programs of Study

A Program of Study is a national initiative to prepare students for postsecondary education and career success. Secondary Career and Technical Education Programs are aligned with Cochise

College courses/programs with the opportunity for participating students to earn college credit while still in high school (academic and technical) that then lead to a college certificate, an associate or baccalaureate degree and/or an industry recognized credential or licensure.

For more information and the Programs of Study available at your high school, contact your high school counselor; CTE Director; or the Cochise College Programs of Study Office. Visit www.cochise.edu/highschool.

Summer Spanish and English Immersion Programs: Douglas Campus

The college offers summer Spanish and English (ESL) immersion programs that provide intensive, day-long instruction to non-native speakers of English or whose first language is not Spanish. These programs are designed to improve basic listening and speaking in the Spanish language, or to improve reading/writing and grammar/oral communication proficiency in English. Students receive four to eight transferable credits of first-year Spanish, or completion of one level of ESL. Classroom instruction is complemented by use of computer-assisted instruction, audio-visual materials, field trips and social activities.

Disclaimers

Right to Make Changes or Correct Errors

Cochise College reserves the right to make changes without notice in fees, faculty assignments, time schedules, courses, curricula, and policies; to cancel classes when necessary; to set maximum and minimum limits for enrollments in certain classes; and to make changes to other matters contained in this catalog.

Responsibility for Personal Property

Cochise College is not responsible for loss, theft or damage to individuals' personal property.

Equal Opportunity/Students with Disabilities Policy

Cochise College does not discriminate in admission or access to, or treatment or employment in, its services, programs, or activities on the basis of race, color, national origin, sex, religion, age (40+) or disability, in compliance with the laws of the United States and the state of Arizona.

The college seeks to provide disabled or handicapped students with any reasonable accommodation in order to facilitate access to college classes and activities. Students seeking such an accommodation should make an official request through Student Services.

A lack of English language skills will not be a barrier to admission and participation in the career and technical (vocational) education programs of the college.

Any questions regarding the applicability of state and federal anti-discrimination laws to Cochise College and its services, programs or activities, and any grievances or claims of violation of such laws, should be directed to the Title IX and Section 504 compliance officer:

Wendy Davis, VPHR

Sierra Vista Campus
Student Union Building, Room 1051
901 N. Colombo Ave.
Sierra Vista, AZ 85635
Phone: (520) 515-3623

Douglas Campus
Administration Building, Room 125
4190 Highway 80
Douglas, AZ 85607
Phone: (520) 515-3623

La Politica de Igualdad de Oportunidades y Los Estudiantes con Incapacidades

En cumplimiento con las leyes de los Estados Unidos y del Estado de Arizona, Cochise College no discrimina en base a la raza, el color, la nacionalidad, el sexo, la religión, la edad (el ser mayor de 40 años) o la discapacidad de las personas en sus procesos de empleo, de admisión o al tratar de obtener los servicios, programas o las actividades que ofrece esta institución.
Cochise College trata de proporcionar un acomodo razonable a sus estudiantes incapacitados o con limitaciones físicas para facilitarles el acceso a las clases o actividades. Aquellos estudiantes que necesiten este tipo de acomodo deberán formalmente solicitarlo al departamento de Servicios para Estudiantes.
La habilidad limitada del idioma inglés no es una barrera para la admisión o la participación de las carreras técnicas y vocacionales disponibles en la institución.
Cualquier pregunta sobre la administración de las leyes sobre discriminación en Cochise College en sus servicios, programas o actividades, así mismo como cualquier queja o reclamo de violación de dichas leyes se debe dirigirse al oficial a cargo de la administración y el cumplimiento de Titulo IX y Secion 504

Wendy Davis, VPHR

Sierra Vista Campus
Student Union Building, Room 1051
901 N. Colombo Ave.
Sierra Vista, AZ 85635
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Douglas Campus
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COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Administration of Justice-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of and analyze the history, development, philosophy, ethics, constitutional parameters, organization, and terminology of the criminal justice system and legal sanctions.
2. Demonstrate an understanding of and analyze deviance and society's role in defining behavior, and the development of juvenile justice theories, procedures, and institutions.
3. Explain the theories, procedures, and methods of operation of public police, criminal investigation, crime scene investigation, case preparation, interviewing, and basic investigative techniques.
4. Demonstrate an understanding of and analyze major court holdings, procedural requirements that stem from these holdings, and their effect on daily operations of the criminal justice system.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AJS 101 Introduction to Administration of Justice	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts*		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	AJS 109 Substantive Criminal Law	F2F,VC	3
Core Curriculum	AJS 225 Criminology or AJS 275 Criminal Investigations	F2F,VC	3
Core Curriculum	COM 102 Essent of Comm or COM 204 Elem of Intercult Comm	F2F or VC	3
Core Curriculum	Physical Education	F2F	2
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Elective**		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	AJS 212 Juvenile Justice Procedures	F2F,VC	3
Core Curriculum	AJS 260 Procedural Criminal Law	F2F	3
Core Curriculum	CHM 128 Forensic Chem or FOR 105 For Science: Phys Evidence	F2F	4
General Education-Liberal Arts*		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	AJS 230 The Police Function	F2F,VC	3
Core Curriculum	AJS 240 The Correction Function	F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**			0-1

Total credits required: 64

Notes:

*POS 220, PSY 101, PSY 270, SOC 101, SOC 160, and SOC 207 are recommended.
**Department approved electives may include, but are not limited to, the following: AJS 204, AJS 215, AJS 225 (or AJS 275), CHM 128 (or FOR 105), PSY 101, PSY 240, non-English language and laboratory science courses.
+Based upon AJS Department evaluation, certified law enforcement training such as POST Academy, Border Patrol Academy, and COTA can be used to fulfill all or part of the core curriculum and elective requirements.

Students pursuing a BAS degree must meet with an advisor to determine the appropriate general education and core curriculum requirements. Additional credits required in the general education block for BAS transfer may be used to fulfill core curriculum or elective requirements.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Administration of Justice-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of and analyze the history, philosophy, ethics, constitutional parameters, organization, and terminology of the criminal justice system.
2. Demonstrate an understanding of and analyze the philosophy of legal sanctions and their historical development, from common law to modern American criminal law.
3. Demonstrate an understanding of and analyze deviance and society's role in defining behavior.
4. Demonstrate an understanding of and examine the study of theories, procedures, and methods of operation of public police with emphasis on discretionary powers.
5. Demonstrate an understanding of and examine the study of the history and development of correctional theories and institutions.
6. Demonstrate an understanding of and analyze major court holdings, procedural requirements that stem from these holdings, and their effect on daily operations of the criminal justice system.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AJS 101 Introduction to Administration of Justice	F2F, VC	3
General Education-Arts		F2F, VC	3
General Education-Composition	ENG 101 Composition	F2F, VC	3
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F, VC	3-5
General Education-Social & Beh Sciences*		F2F, VC	3
Second Semester (Spring):			
Core Curriculum	AJS 109 Substantive Criminal Law	F2F, VC	3
General Education-Composition	ENG 102 English Composition	F2F, VC	3
General Education-Humanities		F2F, VC	3
General Education-Social & Beh Sciences*		F2F, VC	3
Elective++		F2F, VC	3
Third Semester (Fall):			
Core Curriculum	AJS 225 Criminology	F2F, VC	3
Core Curriculum	AJS 260 Procedural Criminal Law	F2F	3
General Education-Lab Sciences	CHM 128 Forensic Chem or FOR 105 Forensic Sci: Phys Evidence	F2F	4
Elective++		F2F, VC	3
Elective++		F2F, VC	3
Fourth Semester (Spring):			
Core Curriculum	AJS 230 The Police Function	F2F, VC	3
Core Curriculum	AJS 240 The Correction Function	F2F, VC	3
General Education-Elective**	COM 102 Essentials of Communication	F2F	3
General Education-Elective**		F2F, VC	1-3
General Education-Lab Sciences***		F2F	4
Elective++		F2F, VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*COM 204, POS 110, or POS 220, and PSY 101, SOC 101, or SOC 160 are recommended.
**General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
***CHM 128 or FOR 105 is highly recommended.
++Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. AJS 212, AJS 215, AJS 275, PSY 240, and SOC 207 are recommended. It is highly recommended that students complete a criminal justice-related internship in addition to the 64-unit degree, namely AJS 224 or a related SLE special topics course.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Administrative Office Aide-Certificate

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Apply fundamental components of Word, Excel, Access, Outlook, and PowerPoint.
2. Demonstrate proficiency in all components of Excel.
3. Demonstrate proficiency in all components of Word.
4. Produce documents in Word, Excel, Access, Outlook, and PowerPoint with clarity and accuracy.
5. Demonstrate the ability to perform data entry and clerical work in an office environment.

Course or program prerequisite(s) not included in the degree:

BUS 210 Automated Office Procedures requires CIS 181 Computer Applications or permission of instructor.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials*	F2F,VC	3
Core Curriculum	BUS 160 Essential Workplace Success Skills	ITV,VC	3
Core Curriculum	BUS 210 Automated Office Procedures	F2F	3
Second Semester (Spring):			
Core Curriculum	BUS 213 Word Processing	F2F	3
Core Curriculum	BUS A193 Excel I	F2F	1
Core Curriculum	BUS B193 Excel II	F2F	1
Core Curriculum	BUS C193 Excel III	F2F	1
Electives-BUS**		F2F,VC	1-3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 16-18

Notes:

*CIS 116 Computer Essentials is a core course in the certificate; however, since it is a prerequisite for BUS 210, it must be taken prior to starting this two-semester sequencing.
**Business approved courses

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Aerospace Thermal Fusion-Certificate

Location(s) Offered:

Sierra Vista Campus (Requires five semesters to complete.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to perform entry-level welding skills required in industries such as aviation, aerospace, motorsports, and exotic material fabrication.
2. Demonstrate the ability to interpret blueprints and welding symbols.
3. Demonstrate applied mathematics and technical writing skills.
4. Demonstrate safe work habits when operating welding equipment.
5. Complete basic welding operations using appropriate gas tungsten arc welding processes on various metals and in various situations.

Course or program prerequisite(s) not included in the degree:

CIS 179 Applied Technical Writing requires appropriate English placement score (or see advisor) and RDG 122 Reading Critically or exemption.
MAT 132 Applied Mathematics requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Core Curriculum	MAT 132 Applied Mathematics	F2F	3
Core Curriculum	WLD 105 Oxyacetylene Welding	F2F	3
Second Semester (Spring):			
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	GTC 105 Manufacturing and Processes	F2F	3
Core Curriculum	WLD 203 Blueprint Interpretation	F2F	3
Core Curriculum	WLD 209 Gas Tungsten Arc Welding (GTAW)	F2F	3
Third Semester (Fall):			
Core Curriculum	WLD 218 Advanced GTAW - Soft Metals	F2F	3
Fourth Semester (Spring):			
Core Curriculum	WLD 219 Advanced GTAW - Hard Metals	F2F	3
Fifth Semester (Fall)*:			
Core Curriculum	WLD 220 Advanced GTAW - Exotic Metals	F2F	3

Total credits required: 30

Notes:

*Due to prerequisites this certificate will take five semesters to complete.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Aerospace Welding Technology-Certificate

Location(s) Offered:

Sierra Vista Campus (Requires five semesters to complete.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to perform entry-level welding skills required in industries such as aviation, aerospace, motorsports, and exotic material fabrication.
2. Demonstrate the ability to interpret blueprints and welding symbols.
3. Demonstrate safe work habits when operating welding equipment.
4. Complete basic welding operations using appropriate gas tungsten arc welding processes on various metals and in various situations.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	WLD 105 Oxyacetylene Welding	F2F	3
Second Semester (Spring):			
Core Curriculum	WLD 203 Blueprint Interpretation	F2F	3
Core Curriculum	WLD 209 Gas Tungsten Arc Welding (GTAW)	F2F	3
Third Semester (Fall):			
Core Curriculum	WLD 218 Advanced GTAW - Soft Metals	F2F	3
Fourth Semester (Spring):			
Core Curriculum	WLD 219 Advanced GTAW - Hard Metals	F2F	3
Fifth Semester (Fall)*			
Core Curriculum	WLD 220 Advanced GTAW - Exotic Metals	F2F	3

Total credits required: 18

Notes:

*Due to prerequisites this certificate will take five semesters to complete.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Agriculture-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus (Requires one summer session.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of livestock production, plants, soils, biotechnology, natural resources, and sustainable agriculture as it relates to the global food industry.
2. Explain the principles of range management, ecological systems, grazing systems and distribution, and stocking rates as they apply to livestock production; and identify range plants.
3. Identify the principles of animal science and apply these principles to efficient livestock and poultry production.
4. Demonstrate an understanding of soil science including the origin, nature, and composition of soils as well as their chemical, physical, and biological properties in relation to plant growth.
5. Demonstrate an understanding of economic principles and their application to agribusiness management and of management principles in both domestic and international markets.
6. Explain digestion and the digestibility of feeds, their nutritive values, grades, and classes; and identify the principles of selection, evaluation, and ration formulations for livestock and poultry.
7. Explain the fundamentals of Equus, anatomical systems, health management, and methods of identification.
8. Demonstrate an understanding of the operational methods of livestock production; and identify economically important traits, principles of animal selection, breeding, and management techniques.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III: Appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AGR 102 Introduction to Agriculture	F2F	3
Core Curriculum	AGR 105 Range Management	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts	COM 102 Essentials of Communication	F2F	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Second Semester (Spring):			
Core Curriculum	AGR 208 Animal Science	F2F	4
Core Curriculum	BIO 100 General Biology (for non-majors)	F2F,VC	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Core Curriculum (Summer I)	AGR 220 Agriculture Practicum	F2F	4
Third Semester (Fall):			
Core Curriculum	AGR 237 Equine Science and Management	F2F	4
Core Curriculum	AGR 243 Livestock Production and Management	F2F	3
Core Curriculum	CHM 130 Fundamental Chemistry	F2F,VC	4
General Education-Liberal Arts	PSY 101 Introduction to Psychology	F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	AGR 214 Soil Science	F2F	4
Core Curriculum	AGR 225 Principles of Agribusiness	F2F	3
Core Curriculum	AGR 230 Feeds and Feeding	F2F	3
Core Curriculum	BUS 143 Principles of Management	ITV	3
Elective		F2F,VC	3-4

Total credits required: 64

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Automotive Technology (Daytime Program)-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to select and use the proper hand tools for a specific automotive repair.
2. Demonstrate the ability to use diagnostic equipment to analyze engine controls and other subsystems.
3. Demonstrate the ability to use diagnostic charts, schematics, and meters to analyze faults.
4. Demonstrate a general proficiency in all eight areas of the Automotive Service Excellence (ASE) Master Certification Standard.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AUT 101 Introduction to Automotive Technology	F2F	3
Core Curriculum	AUT 102 Automotive Electrical Fundamentals	F2F	3
Core Curriculum	AUT 103 Internal Combustion Engines	F2F	3
Core Curriculum	AUT 104 Automotive Brake Systems	F2F	3
Core Curriculum	AUT 105 Auto Suspension and Steering Systems	F2F	3
Second Semester (Spring):			
Core Curriculum	AUT 106 Automotive Manual Drive Systems	F2F	3
Core Curriculum	AUT 201 Automotive Electrical Systems	F2F	3
Core Curriculum	AUT 204 Automotive Transmission/Transaxle	F2F	3
Core Curriculum	AUT 205 Automotive Heating, Ventilation and AC	F2F	3
Core Curriculum	AUT 206 Engine Performance	F2F	3
Third Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Elective		F2F,VC	3
Elective		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	AUT 108 Automotive Parts Specialist	F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	3
Elective		F2F,VC	3-4

Total credits required: 64

Notes:

AUT courses are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Automotive Technology (Evening Program)-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to select and use the proper hand tools for a specific automotive repair.
2. Demonstrate the ability to use diagnostic equipment to analyze engine controls and other subsystems.
3. Demonstrate the ability to use diagnostic charts, schematics, and meters to analyze faults.
4. Demonstrate a general proficiency in all eight areas of the Automotive Service Excellence (ASE) Master Certification Standard.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Elective		F2F,VC	3
Elective		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	AUT 101 Introduction to Automotive Technology	F2F	3
Core Curriculum	AUT 102 Automotive Electrical Fundamentals	F2F	3
Core Curriculum	AUT 103 Internal Combustion Engines	F2F	3
Core Curriculum	AUT 104 Automotive Brake Systems	F2F	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	AUT 105 Auto Suspension and Steering Systems	F2F	3
Core Curriculum	AUT 106 Automotive Manual Drive Systems	F2F	3
Core Curriculum	AUT 201 Automotive Electrical Systems	F2F	3
Core Curriculum	AUT 204 Automotive Transmission/Transaxle	F2F	3
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	AUT 108 Automotive Parts Specialist	F2F	3
Core Curriculum	AUT 205 Automotive Heating, Ventilation and AC	F2F	3
Core Curriculum	AUT 206 Engine Performance	F2F	3
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	3-4

Total credits required: 64

Notes:

AUT courses are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Automotive Technology-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to select and use the proper hand tools for a specific automotive repair.
2. Demonstrate the ability to use diagnostic equipment to analyze engine controls and other subsystems.
3. Demonstrate the ability to use diagnostic charts, schematics, and meters to analyze faults.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AUT 101 Introduction to Automotive Technology	F2F	3
Core Curriculum	AUT 102 Automotive Electrical Fundamentals	F2F	3
Core Curriculum	AUT 103 Internal Combustion Engines	F2F	3
Core Curriculum	AUT 104 Automotive Brake Systems	F2F	3
Core Curriculum	AUT 105 Auto Suspension and Steering Systems	F2F	3
Second Semester (Spring):			
Core Curriculum	AUT 201 Automotive Electrical Systems	F2F	3
Core Curriculum	AUT 204 Automotive Transmission/Transaxle	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 21

Notes:

AUT courses are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Aviation Dispatch-Associate of General Studies Degree

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the theoretical knowledge and practical skills to successfully pass the Federal Aviation Administration (FAA) Aircraft Dispatcher Practical Test.
2. Analyze and interpret weather and aircraft performance charts, and load reports for aircraft operations.
3. Demonstrate resource management skills involved in resolving interpersonal issues and in coordinating and optimizing the interface among dispatchers and machines.
4. Demonstrate the ability to resolve conflict among team members, including pilots and maintenance personnel.
5. Demonstrate problem-solving skills and aeronautical decision making as they support pilots in making go and no-go decisions related to flight operations.
6. Demonstrate the FAA-required knowledge and skills used in the flight planning process.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
PFT 101 Private Pilot Ground School requires acceptance into the aviation program.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Core Curriculum	PFT 101 Private Pilot Ground School	F2F,VC	5
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
Elective		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PFT 122 Aviation Weather	F2F,VC	3
Core Curriculum	PFT 204 Instrument Rating Ground School	F2F,VC	5
Core Curriculum	PFT 206 Aircraft Systems	F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	PFT 222 Aircraft Dispatcher	F2F	7
General Education-Elective*		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-5
General Education-Social & Beh Science		F2F,VC	3
Fourth Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Elective*		F2F,VC	3-4
General Education-For Lang or Comm		F2F,VC	3-4
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Science		F2F,VC	3

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise/.edu/AGEC

*General education electives must be chosen from the general education list or HPE 179.

PFT courses are taught in 10-, 16-, and 21-week sessions.

Acceptance into the professional pilot program requires an interview with the director of aviation plus completion of admission requirements and departmental acceptance. Admission to Cochise College does not guarantee acceptance into the pilot program.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Avionics Technology-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus (Requires one summer session.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to obtain the Federal Communications Commission (FCC) General Radiotelephone Operator License.
2. Demonstrate proper use of standard avionics electronic test equipment for the installation, repair, and calibration of avionics systems.
3. Test and troubleshoot instruments, components, and assemblies using circuit testers, oscilloscopes, or voltmeters.
4. Adjust, repair, or replace malfunctioning components or assemblies using hand tools or soldering irons.
5. Apply recommended safety procedures when working on aircraft.
6. Utilize appropriate documentation while performing avionics tasks.
7. Comply with Federal Aviation Administration (FAA) rules and regulations governing avionics technicians.
8. Use logical thinking in performing day-to-day activities, and coordinate and communicate with team members.

Course or program prerequisite(s) not included in the degree:

AVT 104 Introduction to Electronics requires one year of high school algebra.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AVT 104 Introduction to Electronics	F2F	7
Core Curriculum	AVT 107 Avionics Fundamentals to Include UASs	F2F	4
Core Curriculum	AVT 112 Electronic Devices and Circuits I	F2F	8
Core Curriculum	AVT 220 Navigation Systems to Include UASs	F2F	4
Second Semester (Spring):			
Core Curriculum	AVT 115 Digital and Microprocessor Fundamentals	F2F	8
Core Curriculum	AVT 202 Electronic Communications to Include UASs	F2F	8
Core Curriculum	AVT 205 Electronic Devices and Circuits II	F2F	4
Core Curriculum	AVT 208 FCC/FAA Regulations	F2F	3
Core Curriculum	AVT 228 Aircraft Radar Systems to Include UASs	F2F	4
Core Curriculum (Summer)	AVT 218 UASs and Ground Control Stations	F2F	4
Core Curriculum (Summer)	AVT 224 Autopilot & Control Systems to Include UASs	F2F	3
Third Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Fourth Semester (Spring):			
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Liberal Arts		F2F,VC	3

Total credits required: 75-76

Notes:

AVT courses are offered in various week formats. Consult the Aviation Department.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Avionics Technology-Certificate

Location(s) Offered:

Douglas Campus (Requires one summer session.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to obtain the Federal Communications Commission (FCC) General Radiotelephone Operator License.
2. Demonstrate proper use of standard avionics electronic test equipment for the installation, repair, and calibration of avionics systems.
3. Test and troubleshoot instruments, components, and assemblies using circuit testers, oscilloscopes, or voltmeters.
4. Adjust, repair, or replace malfunctioning components or assemblies using hand tools or soldering irons.
5. Apply recommended safety procedures when working on aircraft.
6. Utilize appropriate documentation while performing avionics tasks.
7. Comply with Federal Aviation Administration (FAA) rules and regulations governing avionics technicians.
8. Use logical thinking in performing day-to-day activities, and coordinate and communicate with team members.

Course or program prerequisite(s) not included in the degree:

AVT 104 Introduction to Electronics requires one year of high school algebra.

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AVT 104 Introduction to Electronics	F2F	7
Core Curriculum	AVT 107 Avionics Fundamentals to Include UASs	F2F	4
Core Curriculum	AVT 112 Electronic Devices and Circuits I	F2F	8
Core Curriculum	AVT 220 Navigation Systems to Include UASs	F2F	4
Second Semester (Spring):			
Core Curriculum	AVT 115 Digital and Microprocessor Fundamentals	F2F	8
Core Curriculum	AVT 202 Electronic Communications to Include UASs	F2F	8
Core Curriculum	AVT 205 Electronic Devices and Circuits II	F2F	4
Core Curriculum	AVT 208 FCC/FAA Regulations	F2F	3
Core Curriculum	AVT 228 Aircraft Radar Systems to Include UASs	F2F	4
Core Curriculum (Summer)	AVT 218 UASs and Ground Control Stations	F2F	4
Core Curriculum (Summer)	AVT 224 Autopilot & Control Systems to Include UASs	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 57

Notes:

AVT courses are offered in various week formats. Consult the Aviation Department.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Basic Logistics Supply Chain Management-Certificate

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of the basics of logistics, inventory control, computerized logistics, and warehouse management.
2. Demonstrate the ability to use computers in the logistics industry, including the knowledge to use industry software.
3. Effectively analyze warehouse location and operations, controls and procedures, cargo, and materials handling.
4. Demonstrate the skills required to be successful in a logistics career.

Course or program prerequisite(s) not included in the degree:

BUS 167 Business Communications requires appropriate English placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials	F2F,VC	3
Core Curriculum	LGS 101 Principles of Logistics	ITV	3
Core Curriculum	LGS 102 Inventory Control	ITV	3
Core Curriculum	LGS 105 Warehouse Management	ITV	3
Core Curriculum	LGS 109 Readiness Skills for Logistics Careers	VC	1
Second Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum	LGS 104 Computerized Logistics	ITV	2
Core Curriculum	LGS 106 Transport and Traffic Mgt or LGS 108 International Log	ITV	3
Core Curriculum	LGS 224 Field Experience in Logistics	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 24

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Biology-Associate of Science Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate mastery of biological laboratory techniques including microscopy.
2. Demonstrate a working understanding of the processes of aerobic and anaerobic respiration.
3. Demonstrate a working understanding of the steps of molecular genetics including the concept of the gene and its expression.
4. Demonstrate a basic understanding of cellular biology.
5. Explain biological evolution, including natural selection and speciation, and the rules of nomenclature.
6. Demonstrate a working understanding of ecological principles.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BIO 181 General Biology I	F2F	4
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BIO 182 General Biology II	F2F	4
Core Curriculum	MAT 167 Elements of Statistics	F2F,ITV,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Third Semester (Fall):			
General Education-Add Math/Lab Sci*		F2F	3-4
General Education-Arts		F2F,VC	3
General Education-Lab Sciences	CHM 151 General Chemistry I	F2F	4
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
General Education-Add Math/Lab Sci*		F2F	3-4
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences	CHM 152 General Chemistry II	F2F	4
Elective**		F2F,VC	3
Elective**		F2F,VC	2-6

Total credits required: 64

Notes:

Six credits of arts, humanities, or social and behavioral sciences must be chosen for the current listing of intensive writing courses. See www.cochise.edu.AGEC.

*Based on your major and after consulting with an advisor, select MAT 231, MAT 241, MAT 252, MAT 262, and/or appropriate laboratory science courses. See www.aztransfer.com/cgi-bin/WebObjects/agecweb.woa for a complete list.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Building Construction Technology-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Apply industry-recognized competency in various construction skills.
2. Demonstrate the ability to follow a blueprint to estimate and build from foundation to finish using carpentry, electrical, plumbing, and HVAC skills.
3. Demonstrate the ability to understand and incorporate sustainable (green) practices in the construction field.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor)

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BCT 100 Technical Mathematics I	F2F	3
Core Curriculum	BCT 102 Carpentry Fundamentals	F2F	3
Core Curriculum	BCT 103 International Residential Building Codes	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BCT 108 Basics in Construction	F2F	3
Core Curriculum	BCT 109 Construction Safety	F2F	3
Core Curriculum	BCT 127 Blueprint Reading and Estimating	F2F	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Third Semester (Fall):			
Core Curriculum	BCT 104 Electric I	F2F	3
Core Curriculum	BCT 110 Cabinetmaking	F2F	4
Core Curriculum	BCT 111 Plumbing	F2F	4
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	BCT 201 Carpentry Framing and Finishing	F2F	4
Core Curriculum	BCT 202 Carpentry Forms	F2F	4
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	3
Elective		F2F,VC	2-3

Total credits required: 64

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Business Administration-Associate of Business Degree

Location(s) Offered:

Douglas Campus, Sierra Vista Campus, and Virtual Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Explain the process of maintaining proper accounting records for a business and demonstrate the skills required to maintain such records.
2. Demonstrate the ability to interpret and communicate a business' financial information.
3. Examine legal and ethical issues from the perspective of a business manager or owner.
4. Demonstrate an understanding of the direct issues related to the economic conditions in America and other countries.

Course or program prerequisite(s) not included in the degree:

BUS 167 Business Communications requires CIS 116 Computer Essentials.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 212 Calculus for Business requires appropriate mathematics placement score (or see advisor), MAT 151 College Algebra, or MAT 187 Precalculus.
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BUS 109 Survey of American Business	ITV,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 212 Calculus for Business or MAT 220 Calculus I	F2F,VC	3-5
General Education-Social & Beh Sciences	ECN 201 Principles of Macroeconomics IW	F2F,ITV,VC	3
General Education-Technology Literacy	CIS 120 Introduction to Information Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Elective*		F2F,VC	1-3
General Education-Humanities		F2F,VC	3
General Education-Social & Beh Sciences	ECN 202 Principles of Microeconomics IW	F2F,ITV,VC	3
Third Semester (Fall):			
Core Curriculum	BUS 172 Quantitative Methods in Business	ITV,VC	3
Core Curriculum	BUS 201 Financial Accounting	ITV,VC	3
Core Curriculum	BUS 219 Business Statistics	ITV,VC	3
Core Curriculum	CIS 181 Computer Applications	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Fourth Semester (Spring):			
Core Curriculum	BUS 202 Managerial Accounting	ITV,VC	3
Core Curriculum	BUS 233 The Legal Environment of Business	ITV,VC	3
Core Curriculum	CIS 281 Advanced Computer Applications	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
Accounting or computer information systems majors should see Transfer Programs ABUS Degree.
Students transferring to Arizona State University, Northern Arizona University, or University of Arizona are required to see a business faculty advisor for specific transfer curriculum to these universities.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Business Management-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of planning for and operating a business.
2. Explain the process of maintaining proper accounting records for a business and demonstrate the skills required to maintain such records.
3. Demonstrate the ability to interpret and communicate a business' financial information.
4. Demonstrate the knowledge and skills required to be successful in the business management environment.
5. Demonstrate an understanding of the basic components needed in business management.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BUS 109 Survey of American Business	ITV,VC	3
Core Curriculum	BUS 123 Human Resource Management	ITV,VC	3
Core Curriculum	BUS 160 Essential Workplace Success Skills	ITV,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 143 Principles of Management	ITV	3
Core Curriculum	BUS 183 Starting a Business	ITV	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts	COM 102 Essentials of Communication	F2F	3
General Education-Lib Arts or Elective	ECN 202 Principles of Microeconomics or Elective	F2F,ITV,VC	3
Third Semester (Fall):			
Core Curriculum	BUS 104 Business Math	F2F	3
Core Curriculum	BUS 145 Principles of Marketing	ITV,VC	3
Core Curriculum	BUS 146 Introduction to Accounting	F2F,VC	3
Core Curriculum	BUS 233 The Legal Environment of Business	ITV,VC	3
Core Curriculum	CIS 181 Computer Applications	F2F,VC	3
General Education-Lib Arts or Elective	ECN 201 Principles of Macroeconomics or Elective	F2F,ITV,VC	3
Fourth Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum	BUS 245 Seminar: Trends and Practices in Business	ITV,VC	3
Elective*		F2F,VC	3
Elective*		F2F,VC	3-4

Total credits required: 64

Notes:

*Recommended electives: Students may consider two co-op credits in BUS 224 to gain workplace experience, and any course with BUS/CIS/ECN prefix and/or alternate courses listed in the core curriculum. Transfer AAS students should check with transfer school for transferability.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Carpentry Technology-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply industry-recognized competency in various carpentry skills.
2. Demonstrate the ability to follow a blueprint to estimate and build from foundation to finish.
3. Demonstrate the ability to understand and incorporate sustainable (green) practices in the carpentry field.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BCT 100 Technical Mathematics I	F2F	3
Core Curriculum	BCT 102 Carpentry Fundamentals	F2F	4
Core Curriculum	BCT 103 International Residential Building Codes	F2F	3
Second Semester (Spring):			
Core Curriculum	BCT 108 Basics in Construction	F2F	2
Core Curriculum	BCT 127 Blueprint Reading and Estimating	F2F	3
Core Curriculum	BCT 201 Carpentry Framing and Finishing	F2F	4
Core Curriculum	BCT 202 Carpentry Forms	F2F	4
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 23

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Chef Garde Manger Apprentice-Certificate

Location(s) Offered:

Fort Huachuca Center

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify and employ tools and equipment used in garde manger, emphasizing safety and sanitation procedures.
2. Apply fundamental skills in the preparation of cold items to include soups, salads, sauces, dressings, marinades, relishes, mousses, sandwiches, canapés, garnishes, and hors d'oeuvres.
3. Demonstrate an understanding of purchasing, receiving, storage, and issuing controls, while applying the basic mathematical formulas for food and labor costs.
4. Apply food presentation techniques in a themed buffet, with recipes and layout.
5. Assemble and serve an international banquet.

Course or program prerequisite(s) not included in the degree:

CUL 204 Food Service Purchasing and Control requires BUS 104 Business Mathematics or appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CUL 105 Nutrition in Food Service	F2F	3
Core Curriculum	CUL 107 Restaurant Sanitation	F2F	3
Core Curriculum	CUL 215 Cooking Essentials	F2F	3
Second Semester (Spring):			
Core Curriculum	CUL 225 Garde Manger I	F2F	3
Core Curriculum	CUL 226 Garde Manger II	F2F	3
Third Semester (Fall):			
Core Curriculum	CUL 204 Food Service Purchasing and Control	F2F	3
Core Curriculum	CUL 275 International Cuisine	F2F	3
Fourth Semester (Spring):			

Total credits required: 21

Notes:

CUL courses are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Chef Patissier - Baker's Apprentice-Certificate

Location(s) Offered:

Fort Huachuca Center

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify and employ equipment and utensils used in baking and discuss their proper use and care.
2. Demonstrate the proper selection of equipment and utensils for specific baking applications.
3. Identify baking ingredients and describe their functions.
4. Demonstrate proper scaling and measurement techniques.
5. Apply basic mathematics skills to recipe conversions.

Course or program prerequisite(s) not included in the degree:

CUL 204 Food Service Purchasing and Control requires BUS 104 Business Mathematics or appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CUL 105 Nutrition and Food Service	F2F	3
Core Curriculum	CUL 107 Restaurant Sanitation	F2F	3
Core Curriculum	CUL 204 Food Service Purchasing and Control	F2F	3
Core Curriculum	CUL 220 Breads and Baking Theory	F2F	3
Core Curriculum	CUL 221 Pastry Basics	F2F	3
Second Semester (Spring):			
Core Curriculum	CUL 101 Cake Decorating	F2F	3
Core Curriculum	CUL 222 Advanced Confections and Pastries I	F2F	3
Core Curriculum	CUL 223 Advanced Confections and Pastries II	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 24

Notes:

CUL courses are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Chemistry-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus (The first two semesters of this degree can be completed on the Douglas Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Calculate the pH, pOH, and the concentration of hydrogen ions and hydroxide ions for strong and weak acid and base solutions.
2. Find the solubility of a solute using the solubility product constant and explain the effect a common ion has on solubility.
3. Perform an acid-base titration to find the molarity of an acid solution using a base that has been standardized.
4. Identify and describe patterns of functional group reactivity through the development of logical mechanistic schemes.
5. Successfully complete the synthesis of organic products and their analysis by characterization of their functional groups.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; and MAT 123 Developmental Mathematics Level III or higher.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Add Math/Lab Science	CHM 151 General Chemistry I	F2F	4
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	MAT 231 Calculus II	F2F	4
General Education-Add Math/Lab Science	CHM 152 General Chemistry II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Elective*		F2F,VC	3
Elective*		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	CHM 235 Organic Chemistry I	F2F	4
General Education-Arts		F2F,VC	3
General Education-Lab Sciences	PHY 230 Physics with Calculus I	F2F	4
General Education-Social & Beh Sciences		F2F,VC	3
Elective*		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	CHM 236 Organic Chemistry II	F2F	4
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences	PHY 231 Physics with Calculus II	F2F	4
Elective*		F2F,VC	4-6

Total credits required: 64

Notes:

Six credits of arts, humanities, or social and behavioral sciences must be chosen for the current listing of intensive writing courses. See www.cochise.edu.AGEC.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

With summer school enrollment a student may be able to start in developmental math or MAT 187 and finish the program in four fall/spring semesters. Students should be aware that higher-level math courses are only offered in the summer based on demand, and cannot be guaranteed.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Cisco and Linux Networking-Associate of Applied Science Degree

Location(s) Offered:

Fort Huachuca Center

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate proficiency with the Linux file system, commands, and utilities.
2. Describe and apply the methods of securing a network.
3. Describe, configure, and troubleshoot serial and broadband connections including Internet Protocol security (IPsec) tunneling operations.
4. Demonstrate advanced management of Linux users and groups.
5. Configure and troubleshoot basic operations of Cisco routers in a complex routed network for Internet Protocol version 4 (IPv4) and Internet Protocol version 6 (IPv6).

Course or program prerequisite(s) not included in the degree:

CIS 294 Field Experience in Computer Information Systems requires a declared major in a computer information systems discipline and permission of the cooperative education program coordinator.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 130 Programming Logic	F2F,VC	3
Core Curriculum	CIS 160 Introduction to Information Security	F2F,VC	4
Core Curriculum	CNT 140 Introduction to Cisco Networks	F2F	3
Core Curriculum	CNT 150 Cisco Routing and Switching Essentials	F2F	3
General Education-Technology Literacy	CIS 120 Introduction to Information Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 128 Linux Operating System	F2F,VC	4
Core Curriculum	CNT 240 Scaling Cisco Networks	F2F	3
Core Curriculum	CNT 250 Connecting Cisco Networks	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	CIS 229 Linux System Administration	F2F,VC	4
Core Curriculum	CIS 248 Perl Scripting	F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-5
Elective*		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	CIS 259 Advanced Linux Systems Administration	F2F,VC	4
Core Curriculum	CIS 294 Field Experience in CIS	F2F	3
General Education-Liberal Arts		F2F,VC	3
Elective*		F2F,VC	4
Elective*		F2F,VC	0-2

Total credits required: 64

Notes:

*The CIS Department recommends any course from the list of department approved electives.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Cisco Networking-Certificate

Location(s) Offered:

Fort Huachuca Center

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of networking concepts through the hands-on use of a personal computer.
2. Demonstrate the ability to compare and contrast the Open Systems Interconnection (OSI) reference model and the Transmission Control Protocol/Internet Protocol (TCP/IP) suite.
3. Demonstrate an understanding of router configuration and operation.
4. Demonstrate an understanding of and perform basic and intermediate configurations of a Cisco Internetwork Operating System (IOS)-based device.
5. Demonstrate the ability to configure a wide area network (WAN).

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 160 Introduction to Information Security	F2F,VC	4
Core Curriculum	CNT 140 Introduction to Cisco Networks	F2F	3
Core Curriculum	CNT 150 Cisco Routing and Switching Essentials	F2F	3
Second Semester (Spring):			
Core Curriculum	CNT 240 Scaling Cisco Networks	F2F	3
Core Curriculum	CNT 250 Connecting Cisco Networks	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 16

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Communications-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of, analyze, and articulate basic communication skills and processes as they relate to a variety of communication situations.
2. Demonstrate an understanding of, analyze, and articulate the theories and techniques of persuasion.
3. Critically analyze oral presentations.
4. Research, construct, and deliver public speeches.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or seeadvisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	COM 102 Essentials of Communication	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	COM 110 Public Speaking	F2F,VC	3
Core Curriculum	COM 270 Interpersonal Communications	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
General Education-Elective*		F2F,VC	2-3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Computer Information Systems-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Effectively communicate technical concepts to a variety of stakeholders.
2. Demonstrate broad knowledge across various types of information systems.
3. Exhibit proficiency with the Internet and with World Wide Web technologies.
4. Create solutions to typical information systems problems; and demonstrate an understanding of basic information systems functions.
5. Utilize spreadsheet applications to support decision making and to facilitate effective problem solving.
6. Utilize database applications to support decision making and to facilitate effective problem solving.
7. Identify and explain the basic functions, uses, and features of any operating system using proper terminology.
8. Describe the major components of a modern networked environment.

Course or program prerequisite(s) not included in the degree:

CIS 179 Applied Technical Writing requires RDG 122 Reading Critically or exemption.
CIS 294 Field Experience in Computer Information Systems requires a declared major in a computer information systems discipline and permission of the cooperative education program coordinator.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 130 Programming Logic	F2F,VC	3
Core Curriculum	CIS 140 Introduction to Operating Systems	F2F,VC	3
Core Curriculum	CIS 150 Essentials of Networking	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 120 Introduction to Information Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 268 Technical Presentations	F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Elective*		F2F,VC	3-4
Third Semester (Fall):			
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	CIS 181 Computer Applications	F2F,VC	3
Core Curriculum	CIS 185 Internet Essentials	F2F,VC	3
Core Curriculum	CIS 294 Field Experience in CIS	F2F	1
General Education-Liberal Arts		F2F,VC	3
Elective*		F2F,VC	4
Fourth Semester (Spring):			
Core Curriculum	CIS 250 Database Management	F2F,VC	4
Core Curriculum	CIS 281 Advanced Computer Applications	F2F,VC	3
Core Curriculum	CIS 287 World Wide Web Development	F2F	3
Core Curriculum	CIS 294 Field Experience in CIS	F2F,VC	2
Elective*		F2F,VC	4

Total credits required: 64

Notes:

*The CIS Department recommends any course from the list of department approve electives.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Computer Information Systems-Associate of Business Degree

Location(s) Offered:

Sierra Vista Campus and Virtual Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate and explain the process of maintaining the proper accounting records for a business.
2. Demonstrate the ability to interpret and communicate a business' financial information.
3. Demonstrate the ability to examine legal and ethical issues from the perspective of a business manager or owner.
4. Transfer to an Arizona public university or apply skills to direct employment in the computer field.
5. Demonstrate an understanding of the direct issues related to the economic conditions in America and other countries.
6. Demonstrate the ability to manage the requirements associated with an information systems project.

Course or program prerequisite(s) not included in the degree:

CIS 181 Computer Applications requires CIS 116 Computer Essentials or CIS 120 Introduction to Information Systems.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 212 Calculus for Business requires appropriate mathematics placement score (or see advisor), MAT 151 College Algebra, or MAT 187 Precalculus.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 130 Programming Logic	F2F,VC	3
Core Curriculum	CIS 181 Computer Applications	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 120 Intro to Computer Information Systems	F2F,VC	3
Second Semester (Spring):			
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Elective*		F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 212 Calculus for Business	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	CIS 270 Systems Analysis	F2F or VC	4
Core Curriculum	BUS 172 Quantitative Methods in Business	ITV,VC	3
Core Curriculum	BUS 201 Financial Accounting	ITV,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences	ECN 201 Principles of Macroeconomics IW	F2F,ITV,VC	3
Fourth Semester (Spring):			
Core Curriculum	BUS 202 Managerial Accounting	ITV,VC	3
Core Curriculum	BUS 219 Business Statistics	ITV,VC	3
Core Curriculum	BUS 233 The Legal Environment of Business	ITV,VC	3
Core Curriculum	CIS 217 Introduction to Visual C#.NET Programming	F2F,VC	4
General Education-Social & Beh Sciences	ECN 202 Principles of Microeconomics IW	F2F,ITV,VC	3

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Computer Maintenance and Repair-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Install and troubleshoot different operating systems.
2. Install and troubleshoot peripheral devices.
3. Demonstrate an understanding of the essential hardware components of a computer and how they work together.
4. Demonstrate an understanding of effective troubleshooting techniques to resolve common hardware, operating system, and network-related issues.
5. Communicate an understanding of the Internet and its supporting protocols.
6. Observe the proper implementation of technology solutions.
7. Effectively utilize modern productivity software.

Course or program prerequisite(s) not included in the degree:

CIS 294 Field Experience in Computer Information Systems requires a declared major in a computer information systems discipline and permission of the cooperative education program coordinator.

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials	F2F,VC	3
Core Curriculum	CIS 140 Introduction to Operating Systems	F2F,VC	3
Core Curriculum	CIS 150 Essentials to Networking	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 185 Internet Essentials	F2F,VC	3
Core Curriculum	CIS 260 Service and Maintenance of PCs	F2F	4
Core Curriculum	CIS 294 Field Experience in CIS	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 19

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Computer Programming-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Create solutions to typical information systems problems.
2. Demonstrate an understanding of basic information systems functions.
3. Identify and explain the basic functions, uses, and features of any operating system using proper terminology.
4. Describe the major components of a modern networked environment.
5. Demonstrate the ability to program in at least three programming languages.
6. Describe the features and functions of the Microsoft or Linux workstation operating systems in a client server environment.

Course or program prerequisite(s) not included in the degree:

CIS 179 Applied Technical Writing requires RDG 122 Reading Critically or exemption.
CIS 185 Internet Essentials requires CIS 116 Computer Essentials or concurrent enrollment.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 130 Programming Logic	F2F,VC	3
Core Curriculum	CIS 140 Introduction to Operating Systems	F2F,VC	3
Core Curriculum	CIS 150 Essentials of Networking	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 120 Introduction to Information Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 160 Introduction to Information Security	F2F,VC	4
Core Curriculum	CIS 217 Introduction to Visual C# .NET Programming	F2F,VC	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Third Semester (Fall):			
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	CIS 185 Internet Essentials	F2F,VC	3
Core Curriculum*	CIS 204 C Programming or CIS 208 Java Program	F2F	4
Core Curriculum	CIS 221 Digital Logic	VC	3
General Education-Liberal Arts		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	CIS 128 Linux Operating Syst or CIS 236 Microsoft Operating Syst	F2F,VC	4
Core Curriculum	CIS 206 Assembler with Architecture	F2F	4
Core Curriculum*	CIS 220C Data Structures-C or CIS 220J Data Structures-Java	F2F	4
Core Curriculum	CIS 270 Systems Analysis	F2F or VC	4

Total credits required: 64-65

Notes:

*Students who select C programming must take CIS 204 and CIS 220C. Students who select Java programming must take CIS 208 and CIS 220J.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Computer Science-Associate of Arts Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Describe the mechanics of information transfer and control within a digital computer system.
2. Design, code, test, and debug JAVA programs using object-oriented programming techniques in the command line environment.
3. Design, code, test, and debug medium-difficulty C programs using structured and modular techniques.
4. Correctly employ appropriate utility programs and libraries.
5. Correctly design modular programs.
6. Design and implement combinational logic circuits with SSI elements (AND, OR, NOT, NAND, NOR, XOR, and XNOR gates).
7. Use data structures in solving programming problems.

Course or program prerequisite(s) not included in the degree:

CIS 204 C Programming requires CIS 130 Programming Logic or score of 70 or higher on the waiver exam.
CIS 208 JAVA Programming requires CIS 130 Programming Logic or score of 70 or higher on the waiver exam.
ENG 101 Composition requires appropriate English placement score (or see advisor) .
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Elective*		F2F,VC	4
General Education-Humanities		F2F,VC	3
General Education-Mathematics	MAT 220 Calculus I	F2F,VC	5
Second Semester (Spring):			
Core Curriculum	MAT 227 Discrete Mathematics	F2F	3
Core Curriculum	MAT 231 Calculus II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	CIS 204 C Programming or CIS 208 JAVA Programming	F2F	4
Core Curriculum	CIS 221 Digital Logic	VC	3
General Education-Arts		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Language Requirement		F2F,VC	4
Fourth Semester (Spring):			
Core Curriculum	CIS 206 Assembler with Architecture	F2F	4
Core Curriculum	CIS 220C Data Structures-C or CIS 220J Data Structures-JAVA	F2F	4
General Education-Lab Sciences		F2F,VC	4
Language Requirement		F2F,VC	4

Total credits required: 65

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from general education list. See www.cochise.edu/AGEC.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Computer Science-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate mathematical proficiency at the Calculus III level.
2. Create solutions to typical information systems problems.
3. Correctly design modular programs.
4. Correctly design assembler language programs.
5. Apply JAVA language structures.
6. Test and debug JAVA programs.
7. Design and implement combinational logic circuits with SSI elements (AND, OR, NOT, NAND, NOR, XOR and XNOR gates).
8. Design and implement combinational logic circuits with MSI elements (multiplexors, decoders, adders, comparators, multipliers, tri-state buffers), and programmable logic devices (PLDs).

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; MAT 123 Dev Math Level III or higher; and RDG 122 or exemption.
CIS 208 JAVA Programming requires CIS 130 Programming Logic or a score of 70 or higher on the waiver exam.
CIS 221 Digital Logic requires CIS 129 Introduction to Programming Logic, CIS 130 Programming Logic, or permission of instructor.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics or one year of high school physics.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 120 Introduction to Information Systems	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CHM 151 General Chemistry I	F2F	4
Core Curriculum	MAT 227 Discrete Mathematics	F2F	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective-CIS*		F2F,VC	0-2
Third Semester (Fall):			
Core Curriculum	CIS 208 Java Programming	F2F	4
Core Curriculum	CIS 221 Digital Logic	VC	3
General Education-Add Math/Lab Science	MAT 231 Calculus II	F2F	4
General Education-Arts		F2F,VC	3
General Education-Lab Sciences	PHY 230 Physics with Calculus I	F2F	4
Fourth Semester (Spring):			
Core Curriculum	CIS 206 Assembler with Architecture	F2F	4
Core Curriculum	CIS 220J Data Structures-Java	F2F	4
General Education-Add Math/Lab Science	MAT 241 Calculus III	F2F	4
General Education-Lab Sciences	PHY 231 Physics with Calculus II	F2F	4

Total credits required: 64

Notes:

Six credits of arts, humanities, or social behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Computer-Aided Drafting-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Use the AutoCAD® software program to create drawings from scratch and to modify, manipulate, copy, delete, save, and plot drawings.
2. Create and manipulate 3D AutoCAD® drawings and convert 2D drawings to 3D drawings.
3. Use the full range of AutoCAD® commands and options, use the keyboard, toolbar, and menu interfaces, and employ shortcuts and time-saving strategies to operate effectively as a CAD technician.
4. Demonstrate oral and written communication, computation, and problem-solving skills appropriate to the drafting industry.
5. Demonstrate basic knowledge of drafting techniques and blueprint reading.
6. Demonstrate knowledge of basic materials and processes used in the current technology workplace.

Course or program prerequisite(s) not included in the degree:

CIS 179 Applied Technical Writing requires appropriate English placement score (or see advisor) and RDG 122 Reading Critically or exemption.
MAT 132 Applied Mathematics requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials	F2F,VC	3
Core Curriculum	DFT 150 Fundamentals of AutoCAD	F2F	3
Second Semester (Spring):			
Core Curriculum	BCT 127 Blueprint Reading and Estimating	F2F	3
Core Curriculum	DFT 201 Topics in Drafting	F2F	3
Core Curriculum	DFT 250 Advanced AutoCAD	F2F	3
Core Curriculum	GTC 105 Manufacturing Manufacturing and Processes	F2F	3
Third Semester (Fall):			
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	DFT 270 AutoCAD 3D	F2F	3
Core Curriculum	MAT 132 Applied Mathematics	F2F	3
Fourth Semester (Spring):			

Total credits required: 27

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Culinary Arts-Associate of Applied Science Degree

Location(s) Offered:

Fort Huachuca Center

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply sanitation and safety procedures in the use of culinary tools and equipment.
2. Demonstrate an understanding of purchasing, receiving, storage, and issuing controls, while applying the basic mathematical formulas for food and labor costs.
3. Assemble and serve an international banquet.
4. Plan and create a menu that incorporates theme, concept, nutrition, balance of flavor, proper preparation, cooking techniques, terminology, proper serving, and explanation of completed dishes.
5. Demonstrate the cooking and leadership skills of a chef de cuisine by employing restaurant-style cookery, to include use of garde manger, saucier, and baking techniques.
6. Transfer to a Bachelor of Arts program in the hospitality industry.

Course or program prerequisite(s) not included in the degree:

CUL 224 Field Experience in Culinary Arts requires a declared major in culinary arts, and permission and approval of the cooperative education coordinator.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CUL 107 Restaurant Sanitation	F2F	3
Core Curriculum	CUL 215 Cooking Essentials	F2F	3
Core Curriculum	CUL 220 Breads and Baking Theory	F2F	3
Core Curriculum	CUL 221 Pastry Basics	F2F	3
General Education-Composition	ENG 101 Composition	F2F	3
Second Semester (Spring):			
Core Curriculum	CUL 225 Garde Manger I	F2F	3
Core Curriculum	CUL 226 Garde Manger II	F2F	3
Core Curriculum	CUL 242 Dining Service Management	F2F	3
General Education-Composition	ENG 102 English Composition	F2F	3
General Education-Mathematics	BUS 104 Business Math or MAT 123 Dev Math III or higher	F2F,VC	3-4
Third Semester (Fall):			
Core Curriculum	CUL 105 Nutrition in Food Service	F2F	3
Core Curriculum	CUL 204 Food Service Purchasing and Control	F2F	3
Core Curriculum	CUL 217 Saucier	F2F	3
Core Curriculum	CUL 275 International Cuisine	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F or VC	3
Fourth Semester (Spring):			
Core Curriculum	CUL 224 Field Experience in Culinary Arts	F2F	1-4
Core Curriculum	CUL 280 Adv Techniques in Gourmet Food Prep I	F2F	3
Core Curriculum	CUL 281 Adv Techniques in Gourmet Food Prep II	F2F	3
General Education-Liberal Arts		F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	2-6

Total credits required: 64

Notes:

CUL courses are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Cybersecurity-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Describe cybersecurity threats as they relate to confidentiality, integrity, and availability.
2. Describe security ramifications that result from human error and from technology, configuration, and policy weaknesses.
3. Secure workstations and servers running current Windows operating system software and test the effectiveness of various security measures.
4. Investigate measures that can help ensure business continuity in the event of a disaster, such as contingency planning and power and backup options.
5. Analyze network operations risks, conduct network penetration tests, and implement network countermeasures.
6. Identify the basic components of a layered structure for network defense architecture; and describe access control objectives and auditing concepts.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 140 Introduction to Operating Systems	F2F,VC	3
Core Curriculum	CIS 150 Essentials of Networking	F2F,VC	3
Core Curriculum	CIS 160 Introduction to Information Security	F2F,VC	4
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 120 Introduction to Information Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 128 Linux Operating Systems	F2F,VC	4
Core Curriculum	CIS 164 Introduction to Scripting Using Python	F2F	4
Core Curriculum	CIS 236 Microsoft Workstation Operating Systems	F2F	4
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Third Semester (Fall):			
Core Curriculum	CIS 161 Network Security	F2F	4
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	CIS 264 Ruby Programming	F2F	4
Core Curriculum	CIS 267 Mobile Security	F2F	3
General Education-Liberal Arts	PSY 101 Introduction to Psychology	F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	CIS 263 Network Defense	F2F	4
Core Curriculum	CIS 275 Computer Forensics	F2F	4
Core Curriculum	CIS 291 Practical Applications in Cybersecurity	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3

Total credits required: 66-67

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Early Childhood Care and Education-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of and analyze children's language growth and communication skills, and family and social input in relation to the spoken language from birth to age five.
2. Demonstrate an understanding of, analyze, and articulate the growth and development from conception to middle childhood, including socialization, health, mental health, safety, and nutrition.
3. Explain the role of cultural and community diversity in the education of young children.
4. Select, plan, and present developmentally appropriate practices and create teaching activities that enhance children's optimum growth to age eight.
5. Demonstrate an understanding of, analyze, and articulate child development and preschool program management principles and classroom management techniques.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	ECE 150 Introduction to Early Childhood Care and Education	ITV or VC	3
Core Curriculum	ECE 155 Children's Language Development	ITV or VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts*		F2F,VC	3
General Education-Mathematics	BUS 104 Bus Math or MAT 123 Dev Math Level III or higher	F2F or VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	ECE 152 Observation, Behavior and Guidance	ITV or VC	3
Core Curriculum	ECE 160 Early Childhood Growth and Development	ITV or VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts*		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	ECE 158 Health, Safety and Nutrition for Young Child	ITV or VC	3
Core Curriculum	ECE 161 Understanding Families, Community and Diversity	ITV or VC	3
Core Curriculum	ECE 172 Teaching Strategies for Early Childhood Edu	ITV or VC	3
Core Curriculum	EDU 201 Introduction to Education	F2F,ITV	3
Core Curriculum	EDU 230 Classroom Relationships	F2F,ITV,VC	3
Fourth Semester (Spring):			
Core Curriculum	ECE 170 Curriculum Devel for Early Childhood Education	ITV or VC	3
Core Curriculum	ECE 173 Administration of Early Child Care and Ed Programs	ITV or VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3-4

Total credits required: 64

Notes:

*Select two of the following: ART 103, ART 120, COM 102, MUS 101, PHI 130, PSY 101, SOC 101, SOC 160, and THE 103.
**Recommended electives include, but are not limited to, the following: ECE 174, SOC 160, COM 204, PSY 240, EDU 222, and EDU 226. Students should consult an advisor for course selection.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Early Childhood Care and Education-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Analyze public education, including the workings of a public school; current educational issues and the role, duties, and qualifications of educators; and educational theories and methods.
2. Demonstrate an understanding of special education, current educational practices, and related educational theories.
3. Identify emotionally disabled, learning disabled, mentally disabled, and gifted children.
4. Analyze the relationship of culture on the child's self-concept and learning style.
5. Demonstrate an understanding of and analyze children's language growth, literacy development, family and social input, and special cases in relation to the spoken language from birth to age five.
6. Examine and analyze childcare or pre-school settings.
7. Demonstrate an understanding of, analyze, and articulate the growth and development from conception to middle childhood, including socialization, health, safety, and nutrition.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	ECE 150 Introduction to Early Childhood Care and Education	ITV or VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	ECE 155 Child Lang, ECE 156 Child Lit, or ECE 160 Growth Dev	ITV or VC	3
General Education-Arts***		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	ECE 155 Child Lang, ECE 156 Child Lit, or ECE 160 Growth Dev	ITV or VC	3
Core Curriculum	EDU 201 Introduction to Education	F2F,ITV	3
Core Curriculum	EDU 226 Cultural Diversity in Education	F2F or ITV	3
Core Curriculum	MAT 154 Math for Elementary Education Majors I	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
Fourth Semester (Spring):			
Core Curriculum	EDU 222 Introduction to Special Education	F2F,ITV,VC	3
Core Curriculum	MAT 156 Math for Elementary Education Majors II	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
General Education-Humanities		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
***ART 120 Appreciation of Visual Arts or MUS 260 Music Fundamentals through Experience is recommended (F2F only).

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Economics-Associate of Arts Degree

Location(s) Offered:

Sierra Vista Campus and Virtual Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate a detailed understanding of the direct issues related to the economic conditions in America and other countries.
2. Transfer to an Arizona public university or apply skills to direct employment in the field of economics.
3. Explain the process of maintaining proper accounting records for a business, with an emphasis on economics-related issues, and demonstrate the skills required to maintain such records.
4. Demonstrate the ability to interpret and communicate a business' financial information as it relates to economics.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 151 College Algebra requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 120 Introduction to Information Systems	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	3
General Education-Mathematics	MAT 151 College Algebra or higher	F2F,VC	3-5
Elective**			3
Second Semester (Spring):			
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Arts		F2F,VC	3
Elective**		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	BUS 219 Bus Statistics or MAT 167 Elements of Statistics	F2F,ITV,VC	3
Core Curriculum	ECN 201 Principles of Macroeconomics IW	F2F,ITV,VC	3
General Education-Elective*		F2F,VC	4-6
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	ECN 202 Principles of Microeconomics IW	F2F,ITV,VC	3
Core Curriculum	MAT 212 Calculus for Business	F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Education-Associate of Applied Science Degree

Location(s) Offered:

Fort Huachuca Center (This degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Apply the principles of learner-centric instruction.
2. Develop appropriate teaching methods to meet the needs of the military and to increase critical thinking skills that promote lifelong learning.
3. Apply the skills used in training students in military subjects such as intelligence, electronics, and unmanned aerial systems.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
See note below.			
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 64

Notes:

The Education Associate of Applied Science degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Electrical Technology-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply industry-recognized competency in various electrical skills.
2. Demonstrate an understanding of electricity and its various functions.
3. Follow a blueprint in order to safely and accurately wire various electrical devices while demonstrating an understanding of the functions and grounding requirements of such electrical devices.
4. Demonstrate the ability to understand and incorporate sustainable (green) practices in the electrical industry.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BCT 104 Electric I	F2F	4
Core Curriculum	BCT 105 Electrical Theory	F2F	3
Core Curriculum	BCT 106 National Electrical Code I	F2F	3
Second Semester (Spring):			
Core Curriculum	BCT 108 Basics in Construction	F2F	2
Core Curriculum	BCT 127 Blueprint Reading and Estimating	F2F	3
Core Curriculum	BCT 204 Electric II	F2F	4
Core Curriculum	BCT 220 Grounding and Bonding	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 22

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Electronics Technology-Associate of Applied Science Degree

Location(s) Offered:

Fort Huachuca Center (This degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Analyze voltage, current, power, resistance, impedance, reactance, and time constants for alternating current and direct current resistive circuits.
2. Identify device types, determine expected voltages, and troubleshoot and isolate faults in analog power supply components and semiconductor devices.
3. Perform numbering system conversions and calculations, and compare the operation of logic gates, flip-flops, registers, counters, and advanced digital circuits.
4. Identify and measure various modulated signals, and interpret the signal characteristics using a spectrum analyzer and oscilloscope.
5. Calculate amplifier gain, cable loss, and band pass measurements on radio frequency devices.
6. Demonstrate an understanding of the importance and operation of microprocessors and microcomputers in communication systems.
7. Set up, configure, and place a specified satellite communication system into operational status.
8. Troubleshoot and repair a faulty component in a specified communication system.

Course or program prerequisite(s) not included in the degree:

ELT 110 Mathematics for Electronics or MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor), or one year of high school algebra or equivalent.
ENG 101 Composition requires appropriate English placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
See note below.			
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required:

Notes:

The Electronics Technology Associate of Applied Science degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Elementary Education-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus (EDU 218 and EDU 221 are offered only through the Virtual Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Analyze public education, the education profession, educational institutions, and educational systems within American society, including the public school setting.
2. Demonstrate an understanding of and analyze current educational issues and the role, responsibilities, and qualifications of educators.
3. Demonstrate an understanding of and analyze connections between educational theories and methodologies.
4. Demonstrate an understanding of special education, current educational practices, and related educational theories.
5. Identify gifted children as well as those with emotional, learning, and mental disabilities; manage student transitions; and apply appropriate approaches to accommodating the special education student.
6. Demonstrate an understanding of, analyze, and articulate the relationship of cultural values to the formation of the child's self-concept and learning style.
7. Analyze and articulate the impact of negative influences on the educational process.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	EDU 201 Introduction to Education	F2F,ITV	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences†		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences†		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	EDU 222 Introduction to Special Education	F2F,ITV,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities†		F2F,VC	3
General Education-Lab Sciences†		F2F,VC	4
General Education-Social & Beh Sciences†		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	EDU 226 Cultural Diversity in Education	F2F or ITV	3
Core Curriculum	EDU 230 Classroom Relationships	F2F,ITV,VC	3
Core Curriculum	MAT 154 Math for Elementary Education Majors I	F2F,VC	3
General Education-Arts†		F2F,VC	3
General Education-Elective*		F2F,VC	2-3
Fourth Semester (Spring):			
Core Curriculum	EDU 218 Intro to SEI or EDU 221 ESL/SEI Teach Methods	VC	3
Core Curriculum		F2F,VC	3
General Education-Elective*		F2F,VC	2-3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
†Recommended courses: Arts-ART 120 or MUS 260; Humanities-COM 102, ART 107, ART 108, and MUS 101; Laboratory Sciences-8 credits must be taken from two different prefixes. BIO 100, BIO 105, BIO 201, GEO 101, PHY 111, CHM 130, AST 180, and GLG 101; Social and Behavioral Sciences-POS 220, HIS 110, HIS 111, PSY 101, ECN 201 or ECN 202, and PSY 240.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Emergency Medical Technician-Certificate

Location(s) Offered:

Benson Center, Douglas Campus, Santa Cruz Center, Sierra Vista Campus, and Willcox Center

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify and assess the signs and symptoms of illness and injury in patients and conduct triage as needed.
2. Demonstrate an understanding of basic human anatomy and physiology in the application of emergency medical care.
3. Provide medical care and basic life support to patients with respiratory, cardiovascular, neurological, allergic, and OB/GYN emergencies, and with age-related and traumatic injuries.
4. Demonstrate various examination techniques on patients with a medical- or injury-related complaint or problem.
5. Demonstrate the skills required by the National Registry of Emergency Medical Technicians and the State of Arizona Department of Health Services, Bureau of Emergency Medical Services.

Course or program prerequisite(s) not included in the degree:

EMT 174 Emergency Medical Technician requires RDG 122 Reading Critically or exemption.
Students taking EMT 174 for state or national certification must be 18 within six months of course completion.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	EMT 174 Emergency Medical Technician	F2F	8
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 8

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Engineering-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply mathematics and science in engineering applications.
2. Design a system, components, or process to meet given specifications and constraints, including economic, environmental, social, political, ethical, health and safety, manufacturing, and sustainability issues.
3. Demonstrate an understanding of professional and ethical responsibility.
4. Exhibit the ability to function on multidisciplinary teams.
5. Demonstrate a knowledge of the techniques, skills, and modern engineering tools necessary for engineering practice.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 187 Precalculus requires appropriate mathematics placement score (or see advisor).
PHY 230 Physics with Calculus I requires PHY 111 General Physics I or one year of high school physics.

The following prerequisites apply to the department approved electives:
CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; MAT 123 Developmental Mathematics Level III or higher; and RDG 122 Reading Critically or exemption.
CHM 152 General Chemistry II requires CHM 151 General Chemistry I.
CIS 221 Digital Logic requires CIS 116 Computer Essentials or CIS 120 Introduction to Information Systems, and CIS 129 Introduction to Programming Logic or CIS 130 Programming Logic; or permission of instructor.
EGR 213 Mechanics of Materials requires EGR 210 Statics.
EGR 214 Dynamics requires EGR 210 Statics.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Mathematics	MAT 187 Precalculus or higher	F2F,VC	5
General Education-Tech Lit substitute*	EGR 122 Programming for Engineering and Science	F2F,VC	4
Second Semester (Spring):			
Core Curriculum	EGR 102 Principles of Engineering	F2F	3
Core Curriculum	MAT 220 Calculus I	F2F,VC	5
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts	ECN 201 Macroeconomics or ECN 202 Microeconomics	F2F,ITV,VC	3
Department Approved Elective**		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	MAT 231 Calculus II	F2F	4
Core Curriculum	PHY 230 Physics with Calculus I	F2F	4
Department Approved Elective**		F2F,VC	4
Department Approved Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	MAT 241 Calculus III	F2F	4
Core Curriculum	MAT 262 Differential Equations	F2F	3
Core Curriculum	PHY 231 Physics with Calculus II	F2F	4
Department Approved Elective**		F2F	3
Department Approved Elective**		F2F	3

Total credits required: 64

Notes:

*EGR 122 Programming for Engineering and Science replaces the technology literacy requirement.
**Department approved electives include CHM 151 General Chemistry I, CHM 152 General Chemistry II, CIS 221 Digital Logic, EGR 202 Electrical Circuits (civil and electrical engineering emphasis), EGR 210 Statics (civil and mechanical engineering emphasis), EGR 213 Mechanics of Materials (civil engineering emphasis), EGR 214 Dynamics (civil and mechanical engineering emphasis), and MAT 252 Introduction to Linear Algebra.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Engineering-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply mathematics and science knowledge and skills in an engineering context.
2. Design a system, components, or process to meet given specifications and constraints, including economic, environmental, social, political, ethical, health and safety, manufacturing, and sustainability issues.
3. Demonstrate an understanding of professional and ethical responsibility.
4. Exhibit the ability to function on multidisciplinary teams.
5. Demonstrate a knowledge of the techniques, skills, and modern engineering tools necessary for engineering practice.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; and MAT 123 Developmental Mathematics Level III or higher.
EGR 102 Principles of Engineering requires MAT 151 College Algebra and MAT 182 Plane Trigonometry, or MAT 187 Precalculus, or concurrent enrollment in MAT 220 Calculus I.
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	EGR 102 Principles of Engineering	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences	CHM 151 General Chemistry I	F2F	4
General Education-Mathematics	MAT 220 Calculus I	F2F,VC	5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	EGR 122 Programming for Engineering and Science	F2F, VC	4
Core Curriculum	MAT 231 Calculus II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F, VC	3
General Education-Lab Sciences	CHM 152 General Chemistry II	F2F	4
General Education-Social & Beh Sciences		F2F, VC	3
Third Semester (Fall):			
Core Curriculum	COM 102 Essentials of Communication	F2F	3
Core Curriculum	PHY 230 Physics with Calculus I	F2F	4
General Education-Add Math/Lab Science	MAT 262 Differential Equations	F2F	3
General Education-Arts		F2F, VC	3
Fourth Semester (Spring):			
Core Curriculum	PHY 231 Physics with Calculus II	F2F	4
General Education-Add Math/Lab Science	MAT 241 Calculus III	F2F	4
General Education-Humanities		F2F,VC	3
Elective*		F2F,VC	4

Total credits required: 64

Notes:

Six credits of arts, humanities, or social behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Engineering Technology-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply mathematics and science knowledge and skills in an engineering technology context.
2. Demonstrate an understanding of professional and ethical responsibility in an industry setting.
3. Exhibit the ability to function on multidisciplinary teams.
4. Demonstrate knowledge of the techniques, skills, and modern engineering technology tools necessary for employment in the engineering technology field.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 187 Precalculus requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	MCS 101 Mechatronic Systems Electrical Component	F2F	4
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts	COM 102 Essentials of Communication	F2F	3
General Education-Mathematics	MAT 187 Precalculus or higher	F2F,VC	5
General Eduction-Technology Literacy	CIS 116 Computer Essentials	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum	CHM 130 Fundamental Chemistry	F2F,VC	4
Core Curriculum	MAT 132 Applied Mathematics	F2F	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts	ECN 201 Macroeconomics	F2F,ITV,VC	3
Third Semester (Fall):			
Core Curriculum	EGR 102 Principles of Engineering	F2F	3
Core Curriculum	MCS 103 Mechatronic Systems Mechanic Component	F2F	4
Core Curriculum	PHY 111 General Physics I	F2F	4
Core Curriculum-Electrical Emphasis	CIS 150 Essent of Network and CIS 181 Computer Applications	F2F,VC	6
Core Curriculum-Mechanical Emphasis	DFT 150 Fund AutoCAD and EGR 122 Prog Engin & Science	F2F or VC	7
Fourth Semester (Spring):			
Core Curriculum	CED 224 Field Experience in Cooperative Education	F2F	2
Core Curriculum	MCS 102 Intro to Programmable Logic Controllers	F2F	4
Core Curriculum	PHY 112 General Physics II	F2F	4
Core Curriculum-Electrical Emphasis	MCS 104 (Elec)Pneumatic & Hydraulic Control Circuit	F2F	4
Core Curriculum-Mechanical Emphasis	DFT 250 Advanced AutoCAD	F2F	3

Total credits required: 65

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: English-Associate of Arts Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of and analyze major British authors.
2. Demonstrate an understanding of and analyze major American authors.
3. Evaluate or critique major British and American authors.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities*		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	ENG 220 British Literature I IW	F2F,VC	3
Core Curriculum	200-level literature course	F2F,VC	3
Core Curriculum or Elective***	ENG 224 IW, ENG 225 IW, ENG 265 IW, or Elective	F2F,ITV,VC	3
General Education-Elective**		F2F,VC	2-3
General Education-Elective**		F2F,VC	2-3
Elective***		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	ENG 221 British Literature II IW	F2F	3
Core Curriculum or Elective***	ENG 224 IW, ENG 225 IW, ENG 265 IW, or Elective	F2F,ITV,VC	3
Elective***		F2F,VC	3
Elective***		F2F,VC	3
Elective***		F2F,VC	3
Elective***		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*The English Department recommends a 200-level literature course.
**General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The degree requires one of the following American literature courses: ENG 224, ENG 225, or ENG 265. The English Department recommends that students satisfy elective credits by selecting ENG 222, ENG 224, ENG 225, ENG 228, ENG 230, ENG 231, ENG 260, ENG 265, and ENG 273.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Entrepreneurship/Small Business Management-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Explain and effectively pursue the ways businesses are financed.
2. Examine legal and ethical issues from the perspective of a business manager or owner.
3. Demonstrate the ability to interpret and communicate a business' financial information.
4. Demonstrate the ability to lead and manage multiple employees in a day-to-day business environment.

Course or program prerequisite(s) not included in the degree:

BUS 167 Business Communications requires CIS 116 Computer Essentials and placement in ENG 101 Composition.
ECN 201 Principles of Macroeconomics requires ENG 101 Composition.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BUS 104 Business Math	F2F	3
Core Curriculum	BUS 109 Survey of American Business	ITV,VC	3
Core Curriculum	BUS 146 Introduction to Accounting	F2F,VC	3
Core Curriculum	CIS 116 or CIS 120 or Department Approved Elective	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum	BUS 183 Starting a Business	ITV	3
Core Curriculum	BUS 233 The Legal Environment of Business	ITV,VC	3
Third Semester (Fall):			
Core Curriculum	BUS 201 Financial Accounting	ITV,VC	3
Core Curriculum	BUS 283 Small Business Management	ITV	3
Core Curriculum	ECN 201 Principles of Macroeconomics	F2F,ITV,VC	3
Fourth Semester (Spring):			

Total credits required: 30

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Equine Science and Management-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus (Requires one summer session.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Explain the evolution and fundamentals of Equus—its anatomical systems, the hoof, nutrition, disease, and health management—and identify breeds, classes, and methods of identification.
2. Demonstrate safe horsemanship and appropriate riding skills of the western horse.
3. Evaluate a horse's conformation and explain how it relates to structural soundness, athletic ability, trainability, longevity, and performance potential.
4. Manage the daily operations of an equine facility with current industry standards of health and nutrition including safe and effective horse handling techniques.
5. Identify the anatomy and physiology of equine body systems and explain how they apply to raising, conditioning, training, and managing horses.
6. Identify the causes of common lamenesses in horses and explain appropriate treatments. Apply appropriate rehabilitative and conditioning techniques.
7. Explain the equine reproductive systems of the mare and stallion as they relate to breeding, selection, and the growth and development of the foal.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate Mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	AGR 237 Equine Science and Management	F2F	4
Core Curriculum	EQS 105 Western Equitation I	F2F	3
Core Curriculum	EQS 120 Equine and Stable Management I	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts	COM 102 Essentials of Communication	F2F	3
Second Semester (Spring):			
Core Curriculum	EQS 205 Western Equitation II	F2F	3
Core Curriculum	EQS 220 Equine and Stable Management II	F2F	3
General Education-Composition	ENG 102 English Composition	F2F	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Core Curriculum (Summer I)	AGR 220 Agriculture Practicum	F2F	4
Third Semester (Fall):			
Core Curriculum	BIO 100 General Biology (for non-majors)	F2F	4
Core Curriculum	EQS 115 Equine Evaluation	F2F	3
Core Curriculum	EQS 145 Equine Anatomy and Physiology	F2F	3
General Education-Liberal Arts	PSY 101 Introduction to Psychology	F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	BUS 143 Principles of Management	ITV	3
Core Curriculum	EQS 215 Equine Lameness	F2F	3
Core Curriculum	EQS 245 Equine Reproduction	F2F	3
Elective		F2F,VC	3
Elective		F2F,VC	3-4

Total credits required: 64

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Exercise Science, Health and Physical Education, Recreation and Wellness-Associate of Arts Degree

Location(s) Offered:

Benson Center, Douglas Campus, and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of and analyze the physical, structural, and functional features of tissues, and of the integumentary, skeletal, muscular, and nervous systems.
2. Demonstrate an understanding of and analyze the physical, structural, and functional features of the endocrine, cardiovascular, respiratory, lymphatic, urinary, digestive, and reproductive systems.
3. Explain the benefits of, and participate in, activities related to fitness, recreation, or sports.
4. Develop an individualized program of diet and exercise.
5. Demonstrate an understanding of, analyze, and articulate practical and theoretical applications of current practices necessary for wellness and optimum health.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences	BIO 156 Intro Biology for Allied Health or BIO 181 Gen Biology I	F2F	4
General Education-Mathematics	MAT 142 Surv College Math, MAT 151 College Algebra, or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Second Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Elective**		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	BIO 201 Human Anatomy and Physiology I	F2F,VC	4
General Education-Elective*		F2F,VC	2-3
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	BIO 202 Human Anatomy and Physiology II	F2F	4
General Education-Elective*		F2F,VC	2-3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	1-3

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives or general education requirements must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Fine Arts-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate skills in basic elements of design: line, shape, value, texture, and color.
2. Demonstrate hand-to-eye coordination and represent drawing and pictoral design by applying freehand drawing.
3. Demonstrate an understanding of and analyze the art and architecture of Western civilization.
4. Demonstrate an understanding of and analyze the basic elements of three-dimensional design.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	ART 103 Design Fundamentals	F2F	3
Core Curriculum	ART 107 Survey of World Art: Prehistoric - Gothic	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
Second Semester (Spring):			
Core Curriculum	ART 106 Drawing I	F2F	3
Core Curriculum	ART 108 Survey of World Art: Renaissance - Twentieth Century	F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
General Education-Elective*		F2F,VC	2-3
General Education-Humanities		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2
Fourth Semester (Spring):			
Core Curriculum	ART 231 Three-Dimensional Design and Sculpture	F2F	3
General Education-Arts		F2F,VC	3
General Education-Elective*		F2F,VC	2-3
Elective**		F2F,VC	3
Elective**		F2F,VC	3

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The Art Department recommends the following: For a two-dimensional emphasis, select ART 216, ART 230, ART 245, ART 280, ART 281, ART 285, ART 286, ART 295, or ART 296; for a three-dimensional emphasis, select ART 270, ART 273, ART 274, ART 275, ART 290, ART 291, ART 293, or ART 294.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Fire Science Technology-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to obtain certification in basic wildland firefighting, hazardous materials emergency response, and first aid and CPR.
2. Demonstrate an understanding of fire behavior; and show abilities in basic firefighter orientation, fitness, and safety, and in building construction, rescue, extrication, and basic extinguishment methods.
3. Demonstrate entry-level firefighter skills required in ladder applications and in basic fire hose techniques and applications.
4. Demonstrate an understanding of fire detection and sprinkler systems, basic causes and origins of fire, and fire education practices.
5. Demonstrate the knowledge and skills required to obtain the certifications of Firefighter 1 and 2 from the state of Arizona through a rigorous testing process.

Course or program prerequisite(s) not included in the degree:

EMT 174 Emergency Medical Technician requires RDG 122 Reading Critically or exemption.
For successful completion of EMT 174, students must meet the following requirements: 1) Minimum age of 18 within six months of course completion (for the state certification only), 2) Negative tuberculin (TB) skin test or negative chest x-ray report, and 3) Drug screen.
ENG 101 Composition requires appropriate English placement score (or see advisor).
FST 224 Field Experience in Fire Science Technology requires a declared major in fire science technology and permission of the cooperative education coordinator.
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	FST 101 Firefighter Safety and Entry-Level Operations	F2F	6
Core Curriculum	FST 102 Fire Rescue Operation	F2F	4
Core Curriculum	FST 113 Firefighter Fitness I	F2F	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	FST 103 Firefighter Ground Ladders and Hose Procedures	F2F	4
Core Curriculum	FST 104 Fire Support Services	F2F	4
Core Curriculum	FST 114 Firefighter Fitness II	F2F	3
Core Curriculum	FST 115 Fire Service Apparatus Driver/Operator	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	FST 224 Field Experience in Fire Science Technology	F2F	2-4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Elective		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	EMT 174 Emergency Medical Technician	F2F	8
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	3
Elective		F2F,VC	0-3

Total credits required: 64

Notes:

FST 101, FST 102, FST 103, and FST 104 are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Fire Science Technology-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to obtain certification in basic wildland firefighting, basic hazardous materials emergency response, and basic first aid/CPR.
2. Demonstrate an understanding of fire behavior and demonstrate abilities in basic firefighter orientation and safety, as well as building construction, rescue, extrication, and basic extinguishment methods.
3. Demonstrate entry-level firefighter skills required in ladder applications and in basic fire hose techniques and applications.
4. Demonstrate an understanding of fire detection and sprinkler systems, the basic causes and origin of fire, and fire education practices.
5. Demonstrate the knowledge and skills required to obtain the certifications of Firefighter 1 and 2 from the state of Arizona through a rigorous testing process.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	FST 101 Firefighter Safety and Entry-Level Operations	F2F	6
Core Curriculum	FST 102 Fire Rescue Operation	F2F	4
Second Semester (Spring):			
Core Curriculum	FST 103 Firefighter Ground Ladders and Hose Procedures	F2F	4
Core Curriculum	FST 104 Fire Support Services	F2F	4
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 18

Notes:

FST 101, FST 102, FST 103, and FST 104 are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: General Business-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply practical math skills used in business situations which include addition, subtraction, multiplication, division, fractions, and percentages.
2. Explain the process of maintaining proper accounting records for a business and demonstrate the skills required to maintain such records.
3. Define the environments in which a business operates in local and global markets, including technology influences.
4. Examine the importance of ethical behavior and social responsibility in a business environment.

Course or program prerequisite(s) not included in the degree:

BUS 167 Business Communications requires CIS 116 Computer Essentials and placement in ENG 101 Composition.

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BUS 104 Business Math	F2F	3
Core Curriculum	BUS 109 Survey of American Business	ITV,VC	3
Core Curriculum	BUS 146 Introduction to Accounting	F2F,VC	3
Core Curriculum	CIS 116 or CIS 120 or Department Approved Elective*	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum	BUS 183 Starting a Business	ITV	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 18

Notes:

*Students may want to select CIS 116 Computer Essentials to satisfy part of the prerequisite for BUS 167 Business Communications.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: General Computer-Aided Drafting-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Use the AutoCAD® software program to create drawings from scratch and to modify, manipulate, copy, delete, save, and plot drawings.
2. Convert 2D drawings to 3D drawings.
3. Use the full range of AutoCAD® commands and options, use the keyboard, toolbar, and menu interfaces, and employ shortcuts and time-saving strategies to operate effectively as a CAD technician.
4. Demonstrate basic knowledge of drafting techniques and blueprint reading.
5. Demonstrate knowledge of basic materials and processes used in the current technology workplace.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials	F2F,VC	3
Core Curriculum	DFT 150 Fundamentals of AutoCAD	F2F	3
Second Semester (Spring):			
Core Curriculum	BCT 127 Blueprint Reading and Estimating	F2F	3
Core Curriculum	DFT 201 Topics in Drafting	F2F	3
Core Curriculum	DFT 250 Advanced AutoCAD	F2F	3
Core Curriculum	GTC 105 Manufacturing Materials and Processes	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 18

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: General Requirements-Associate of Arts Degree

Location(s) Offered:

All locations

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate competency in communication, creativity, critical thinking, cultural and historical or global awareness, information literacy, and technology literacy.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
Elective** or Language Requirement		F2F,VC	3-4
Second Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
General Education-Lab Sciences		F2F,VC	4
Elective** or Language Requirement		F2F,VC	3-4
Third Semester (Fall):			
General Education-Elective*		F2F,VC	2-3
General Education-Social & Beh Sciences		F2F,VC	3
Elective** or Language Requirement		F2F,VC	3-4
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
General Education-Social & Beh Sciences		F2F,VC	3
Elective** or Language Requirement		F2F,VC	3-4
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	1-5

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: General Requirements-Associate of Science Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate competency in communication, creativity, critical thinking, cultural and historical or global awareness, information literacy, and technology literacy.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; and MAT 123 Developmental Mathematics Level III or higher.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics I or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences*	BIO 181 Gen Bio I, CHM 151 Gen Chem I, or PHY 230 Phys Calc I	F2F	4
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Elective***		F2F,VC	3
Second Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences*	BIO 182 Gen Bio II, CHM 152 Gen Chem II, or PHY 231Phys Calc II	F2F	4
General Education-Social & Beh Sciences		F2F,VC	3
Elective***		F2F,VC	3
Third Semester (Fall):			
General Education-Add Math/Lab Sci**		F2F	3-4
General Education-Humanities		F2F,VC	3
Elective***		F2F,VC	3
Elective***		F2F,VC	3
Elective***		F2F,VC	3
Fourth Semester (Spring):			
General Education-Add Math/Lab Sci**		F2F	3-4
Elective***		F2F,VC	3
Elective***		F2F,VC	3
Elective***		F2F,VC	3
Elective***		F2F,VC	1-5

Total credits required: 64

Notes:

Six credits of arts, humanities, or social and behavioral sciences must be chosen for the current listing of intensive writing courses. See www.cochise.edu.AGEC.

*Laboratory science courses must include a two-semester sequence in the same discipline: BIO 181 and BIO 182, CHM 151 and CHM 152, or PHY 230 and PHY 231.
**Based on your major and after consulting with an advisor, select MAT 231, MAT 241, MAT 252, MAT 262, and/or appropriate laboratory science courses. See http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec for a complete list.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: General Studies-Associate of General Studies Degree

Location(s) Offered:

All locations

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate competency in communication, creativity, critical thinking, cultural and historical or global awareness, information literacy, and technology literacy.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Elective*		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-For Lang or Comm		F2F,VC	3-4
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
General Education-Elective*		F2F,VC	3-4
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

*General education electives must be chosen from the general education list or HPE 179.
**Elective courses must be selected from any Cochise College course at the 100 level or higher.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: General Welding Technology-Certificate

Location(s) Offered:

Douglas Campus and Sierra Vista Campus (WLD 209 is offered only on the Sierra Vista Campus due to the lack of proper welding equipment on the Douglas Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate appropriate safe work habits when operating oxyfuel and electric arc welding equipment.
2. Use proper terminology associated with welding to communicate effectively with co-workers, supervisors, customers, inspectors, engineers, and vendors.
3. Successfully perform basic welding operations using appropriate processes on various metals and in various situations with an emphasis on the shielded metal arc welding (SMAW) process.
4. Demonstrate the ability to interpret blueprints and welding symbols in order to fabricate components.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	WLD 105 Oxyacetylene Welding	F2F	3
Core Curriculum	WLD 106 Arc Welding	F2F	3
Core Curriculum	WLD 128 Gas Metal Arc Welding	F2F	3
Second Semester (Spring):			
Core Curriculum	WLD 203 Blueprint Interpretation	F2F	3
Core Curriculum	WLD 209 Gas Tungsten Arc Welding	F2F	3
Core Curriculum	WLD 210 Advanced Shield Metal Arc Welding	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 18

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Hazardous Materials Technician-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to identify hazardous materials and to make decisions on how to best mitigate the potential emergency incidents.
2. Demonstrate the ability to actively engage in plugging and patching hazardous waste materials and to conduct offensive maneuvers to mitigate actual and potential hazardous material spills.
3. Demonstrate the ability to use chemical diagnostic tools to determine unknown chemicals.
4. Demonstrate a clear understanding of the Incident Command System (ICS) and function within its guidelines in a safe and accurate manner.

Course or program prerequisite(s) not included in the degree:

FST 121 Hazmat Technician I requires fire department affiliation.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	FST 121 Hazmat Technician I	F2F	6
Core Curriculum	FST 222 Hazmat Technician II	F2F	5
Core Curriculum	FST 223 Hazmat Technician III	F2F	5
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 16

Notes:

This certificate is offered only when requested by external agencies.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Humanities-Associate of Arts Degree

Location(s) Offered:

Douglas Campus, Sierra Vista Campus, and Virtual Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of, analyze, and articulate the fundamentals of art, architecture, history, philosophy, music, literature, and film from ancient times to the present.
2. Demonstrate an understanding of and articulate the value of the humanities in a cultural context.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
Language Requirement		F2F,VC	4
Second Semester (Spring):			
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3
Language Requirement		F2F,VC	4
Third Semester (Fall):			
Core Curriculum	HUM 205 Cultural Studies through the Humanities I [IW]	ITV,VC	3
General Education-Arts		F2F,VC	3
General Education-Elective*		F2F,VC	2-3
Language Requirement		F2F,VC	4
Elective**		F2F,VC	3-4
Fourth Semester (Spring):			
Core Curriculum	HUM 206 Cultural Studies through the Humanities II [IW]	ITV,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Language Requirement		F2F,VC	4
Elective**		F2F,VC	2-3

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The Humanities Department recommends ART 107, ART 108, ENG 220, ENG 221, ENG 228, HIS 240, HIS 241, HIS 242, HUM 101, HUM 110, HUM 115, HUM 200, and HUM 210.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: HVAC-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify the equipment and controls used in the heating and air conditioning field.
2.Troubleshoot and solve problems associated with heating and air conditioning equipment.
3. Identify and solve problems dealing with the refrigerants used in air conditioning equipment.
4. Demonstrate the knowledge and skills required to take the test for the Environmental Protection Agency (EPA) certification under the Federal Clean Air Act.
5. Troubleshoot and solve problems associated with gas heat and heat pump equipment.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BCT 122 HVAC I	F2F	3
Core Curriculum	BCT 222 HVAC II	F2F	3
Core Curriculum	MAT 132 Applied Mathematics	F2F	3
Core Curriculum	WLD 105 Oxyacetylene Welding	F2F	3
Second Semester (Spring):			
Core Curriculum	BCT 223 HVAC III	F2F	4
Core Curriculum	BCT 225 HVAC IV	F2F	4
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 20

Notes:

BCT 122, BCT 222, BCT 223, and BCT 225 are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Intelligence Operations Studies-Associate of Applied Science Degree

Location(s) Offered:

Fort Huachuca Center and Virtual Campus (This degree is primarily run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling. It is also open to non-military students. IOS 100, IOS 102, IOS 104, IOS 113, IOS 118, IOS 122, IOS 203, and IOS 211 are offered through the Virtual Campus in the fall and spring semesters.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of information security programs and procedures used to develop, account for, control, protect, and eventually destroy sensitive information and material.
2. Demonstrate the managerial skills required in assessment, decision making, problem solving, and resource allocation for intelligence and counterintelligence operations.
3. Demonstrate knowledge of battlefield forensics, communication capabilities, automated intelligence systems, and targeting procedures used by the intelligence community.
4. Explain the history, tactics, structure, and technology used by terrorists groups, and demonstrate an understanding of the methods used by the intelligence community to combat terrorism.
5. Demonstrate knowledge of the structure, function, capability, and contributions of the various national intelligence communities, and of the Intelligence, Surveillance and Reconnaissance (ISR) process.

Note: Depending upon area of concentration, additional learning outcomes may apply.

Course or program prerequisite(s) not included in the degree:

Military credit toward this degree may be based on Joint Service Transcript (JST)-evaluated skill level, training, and/or coursework from military schools attended. See an academic advisor for details.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
See notes below.			
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 64

Notes:

The Intelligence Operations Studies Associate of Applied Science degree is primarily run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling. It is also open to non-military students.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Journalism and Media Arts-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of, analyze, and articulate the basics of mass communications media.
2. Gather, write, and evaluate news and other kinds of communication in newspapers, television, radio, magazines, wire services, books, movies, computer/digital form, and other media.
3. Analyze and articulate news values, interviewing techniques, basic newspaper writing formats, and legal and ethical concerns of media, communication, and journalism professionals.
4. Demonstrate an understanding of and analyze public speaking, the fundamentals of speech as they relate to communicating with an audience, and the theories and techniques of persuasion.
5. Prepare and critically analyze oral presentations.
6. Research, construct, and deliver speeches.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Humanities	COM 102 Essentials of Communication	F2F	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	JRN 101 Introduction to Mass Communications	ITV	3
General Education-Elective*		F2F,VC	2-3
General Education-Elective*		F2F,VC	2-3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	COM 110 Public Speaking	F2F,VC	3
Core Curriculum	JRN 102 Essentials of News Writing	ITV	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Linux System Administrator-Certificate

Location(s) Offered:

Virtual Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Describe how the Linux operating system functions.
2. Use the Linux file and directory system and the Linux vi editor.
3. Add, change, and remove users, groups, and peripheral devices.
4. Perform routine system administration duties.
5. Implement literals, constants, variables, operators, arrays, structures, functions, classes, input and output, and file processing in Perl.
6. Demonstrate the design, coding, testing, and debugging of Perl scripts using current computer problem-solving methodologies.
7. Implement Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and security on a Linux server.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 120 Introduction to Information Systems	F2F,VC	3
Core Curriculum	CIS 129 Introduction to Programming Logic	VC	1
Second Semester (Spring):			
Core Curriculum	CIS 128 Linux Operating System	F2F,VC	4
Third Semester (Fall):			
Core Curriculum	CIS 229 Linux System Administration	VC	4
Core Curriculum	CIS 248 Perl Scripting	VC	3
Fourth Semester (Spring):			
Core Curriculum	CIS 259 Advanced Linux System	VC	4

Total credits required: 19

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Logistics Supply Chain Management-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the skills required to be a successful leader or manager in the logistics industry.
2. Demonstrate an understanding of the intricate details of logistics, inventory control, computerized logistics, and warehouse management.
3. Demonstrate an understanding of how to integrate the concepts related to logistics with the business world.
4. Apply hands-on experience and knowledge of the logistics industry gained through supervised cooperative education work experience.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
LGS 224 Field Experience in Logistics requires a declared major in logistics and permission and approval of a cooperative education program coordinator.
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BUS 109 Survey of American Business	ITV,VC	3
Core Curriculum	LGS 101 Principles of Logistics	F2F	3
Core Curriculum	LGS 102 Inventory Control	F2F	3
General Education-Composition	ENG 101 English Composition	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum	GEO 121 World Regional Geography	F2F,VC	3
Core Curriculum	LGS 103 Freight Claims and Contracts	F2F	3
Core Curriculum	LGS 104 Computerized Logistics	F2F	2
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts	COM 102 Ess of Comm, ECN 202 Micro, or PHI 130 Ethics	F2F,ITV,VC	3
Third Semester (Fall):			
Core Curriculum	BUS 123 Human Resource Management	F2F	3
Core Curriculum	BUS 160 Essential Workplace Success Skills	ITV,VC	3
Core Curriculum	LGS 105 Warehouse Management	F2F	3
Core Curriculum	LGS 107 Introduction to Purchasing	F2F	3
General Education-Liberal Arts	COM 102 Ess of Comm, ECN 202 Micro, or PHI 130 Ethics	F2F,ITV,VC	3
Elective			3
Fourth Semester (Spring):			
Core Curriculum	LGS 106 Transportation and Traffic Management	F2F	3
Core Curriculum	LGS 108 International Logistics	F2F	3
Core Curriculum	LGS 224 Field Experience in Logistics	F2F	1-3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F	3-4
Elective*		F2F,VC	1-4

Total credits required: 64

Notes:

*Recommended electives: Students may consider 2-3 co-op credits in LGS 224 to gain workplace experience, and any course with a BUS/CIS/ECN prefix. Transfer AAS students should check with transfer school for transferability.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Mathematics-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of mathematical algorithms, definitions, and theorems in solving problems.
2. Create, use, and analyze graphical representations of mathematical ideas.
3. Write mathematical arguments using appropriate language, logic, and symbols.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics I or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 130 Programming Logic	F2F,VC	3
General Education-Add Math/Lab Sci*	PHY 111 General Physics I or add math/lab sciences	F2F	3-4
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
Elective****		F2F,VC	3-4
Second Semester (Spring):			
Core Curriculum	MAT 227 Discrete Mathematics	F2F	3
Core Curriculum	MAT 231 Calculus II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	CIS 204 C Program or CIS 208 Java Programming**	F2F	4
Core Curriculum	MAT 241 Calculus III	F2F	4
General Education-Add Math/Lab Sci*		F2F	3-4
General Education-Lab Sciences	PHY 230 Physics with Calculus I	F2F	4
Fourth Semester (Spring):			
Core Curriculum	MAT 252 Linear Algebra or MAT 262 Diff Equations***	F2F	3
General Education-Arts		F2F,VC	3
General Education-Lab Sciences	PHY 231 Physics with Calculus II	F2F	4
General Education-Social & Beh Sciences		F2F,VC	3
Elective****		F2F,VC	0-5

Total credits required: 64

Notes:

Six credits of arts, humanities, or social and behavioral sciences must be chosen for the current listing of intensive writing courses. See www.cochise.edu.AGEC.

*Based on your major and after consulting with an advisor, select PHY III and/or additional mathematics/laboratory science course(s). See www.aztransfer.com/cgi-bin/WebObjects/agecweb.woa for a complete list.
**After consulting with an advisor in the computer science department, select CIS 204 or CIS 208.
***After consulting with an advisor in the mathematics department, select MAT 252 or MAT 262.
****Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Mechatronic Systems Operating Technician-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to maintain, program, and troubleshoot problems related to pneumatic, (electro)pneumatic, and hydraulic control circuits in a mechatronic system.
2. Demonstrate an understanding of basic digital logic and programmable logic controllers (PLCs) in a mechatronic system using the automation system SIMATIC S7-300 and the programming software STEP7.
3. Demonstrate the knowledge and skills required to complete the Level 1 Certification Exam to become a certified Siemens Mechatronic Systems Assistant.

Course or program prerequisite(s) not included in the degree:

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	MCS 101 Mechatronic Systems Electrical Component	F2F	4
Core Curriculum	MCS 103 Mechatronic Systems Mechanic Component	F2F	4
Second Semester (Spring):			
Core Curriculum	MCS 102 Intro to Programmable Logic Controllers	F2F	4
Core Curriculum	MCS 104 (Elec)Pneumatic & Hydraulic Control Circuit	F2F	4
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 16

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Media Production Arts-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus (CIS 129 is offered only through the Virtual Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Understand, analyze, and articulate the fundamentals of speech as they relate to communicating with an audience; create, manipulate, and enhance digital images; and resolve image problems.
2. Develop and describe strategies for conducting research, evaluating resources, and citing sources using the World Wide Web; and describe, analyze, and articulate legal issues in the media.
3. Identify and detail the news values, interviewing techniques, basic newspaper writing formats, and legal and ethical concerns of media professionals.
4. Demonstrate an understanding of, analyze, and articulate the purpose and processes of graphic design, research, and problem-solving methodologies.
5. Demonstrate, as a member of a production team, the uses of the digital video camera, camera lenses, and computer equipment in portfolio preparation and video production.
6. Demonstrate and articulate the uses of still photography, including aspects of the digital medium, including camera, computer, lighting, lens, and composition requirements.
7. Identify and evaluate the components and practices of electronic commerce, including advertising, marketing, security, and payment systems.
8. Demonstrate the stages and uses of audio production, including recording, sound design, sound editing, audio mixing, and the addition of effects; and demonstrate competency in production in a media industry.

Course or program prerequisite(s) not included in the degree:

DMA 260 Graphic Design requires ART 103 Design Fundamentals, ART 106 Drawing I, or permission of instructor.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	DMA 110 Digital Imaging I	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts	COM 102 Essentials of Communication	F2F	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 185 Internet Essentials	F2F,VC	3
Core Curriculum	COM 110 Public Speaking	F2F,VC	3
Core Curriculum	DMA 260 Graphic Design	F2F	3
Core Curriculum	JRN 102 Essentials of News Writing	ITV	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	CIS 129 Introduction to Programming Logic	VC	1
Core Curriculum	CIS 244 World Wide Web Graphics	F2F	3
Core Curriculum	DMA 111 Computer Animation I	F2F,VC	3
Core Curriculum	DMA 262 Digital Video Production	F2F	3
General Education-Liberal Arts	JRN 101 Introduction to Mass Communications	ITV	3
Elective*		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	BUS 285 Electronic Commerce	F2F,VC	3
Core Curriculum	CIS 287 World Wide Web Development	F2F	3
Core Curriculum	DMA 266 Digital Photography	F2F	3
Core Curriculum	JRN 224 Field Exp in Comm and/or Media Technology	F2F	1-6
Elective*		F2F,VC	2-8

Total credits required: 64

Notes:

*Department recommended electives include DMA 261, DMA 263, and DMA 267.

NOTE: Students pursuing a BAS degree must meet with an advisor to determine the appropriate general education and core curriculum requirements. Additional credits required in the general education block for BAS transfer may be used to fulfill core curriculum or elective requirements.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Medical Assistant-Certificate

Location(s) Offered:

Benson Center, Douglas Campus, Santa Cruz Center, Sierra Vista Campus, and Willcox Center (HLT 101 is offered only through the Virtual Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the skills necessary to perform a wide range of duties for employment in a modern medical facility.
2. Demonstrate a nationally-recognized measure of competency for national certification through the National Healthcareer Association (NHA).
3. Perform administrative duties, including telephones, correspondence, insurance forms, medical records, billing, bookkeeping, and office supplies; and greeting, admitting, and scheduling patients.
4. Perform clinical duties including taking vital signs and medical histories, explaining treatments, preparing patients for examination, and assisting physicians with lab procedures, EKGs, and medications.

Course or program prerequisite(s) not included in the degree:

BIO 160 Introduction to Human Anatomy and Physiology requires RDG 122 Reading Critically or exemption.
HLT 139 Medical Assistant requires appropriate mathematics placement score (or see advisor).
Additional program requirements for HLT 139 include 1) Minimum 18 years of age upon course completion, 2) Negative TB skin test or chest x-ray report, 3) Current AZ DPS Fingerprint Clearance Card, and 4) Acceptance into the Medical Assistant program.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BIO 160 Intro to Human Anatomy and Physiology	F2F,VC	4
Core Curriculum	HLT 101 Medical Terminology	VC	2
Core Curriculum	HLT 111 CPR and First Aid*	F2F	1
Core Curriculum	HLT 139 Medical Assistant I	ITV	8
Second Semester (Spring):			
Core Curriculum	HLT 140 Medical Assistant II/Clinical Externship	ITV	12
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 27

Notes:

*HLT 111 must be taken at Cochise College or at an accredited college or university.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Medication Assistant-Certificate

Location(s) Offered:

Sierra Vista Campus (Offered only in summer.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to safely administer selected medications in some hospitals and in long-term care facilities.
2. Apply the principles of medication administration and an understanding of drug laws to various categories of medication.
3. Perform medication calculations, and properly document and administer drugs.

Course or program prerequisite(s) not included in the degree:

HLT 128 Medication Assistant - Certified requires HLT 109 Nursing Assistant or equivalent, and six months working experience as a Certified Nursing Assistant.
Prior to enrollment, students must meet the following requirements: 1) Minimum 18 years of age and 2) High school diploma, GED , or foreign equivalent with English language proficiency.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum (Summer I)	HLT 128 Medication Assistant - Certified	F2F	3
Second Semester (Spring):			
Core Curriculum (Summer II)	HLT 129 Medication Assistant Externship	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 6

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Music-Associate of Arts Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of western music theory from the Renaissance through the present day.
2. Transcribe tonal and atonal passages of music into notation after hearing them.
3. Sight sing musical melodies from notation on first view.
4. Apply performance practices from various eras of western art music with a chosen instrument or their voice.
5. Collaborate and perform with others using a chosen instrument or their voice.
6. Perform alone using a chosen instrument or their voice.
7. Create original musical compositions.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	MUS 109, MUS 110, MUS 111, or MUS 201	F2F	1
Core Curriculum	MUS 113 Instrument-Indiv Instr or MUS 115 Voice-Indiv Instruct	F2F	1
Core Curriculum	MUS 132 Music Theory I	F2F,VC	3
Core Curriculum	MUS 134 Aural Skills I	F2F	1
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	MUS 109, MUS 110, MUS 111, or MUS 201	F2F	1
Core Curriculum	MUS 113 Instrument-Indiv Inst or MUS 115 Voice-Indiv Instruct	F2F	1
Core Curriculum	MUS 133 Music Theory II	F2F,VC	3
Core Curriculum	MUS 135 Aural Skills II	F2F	1
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	MUS 232 Music Theory III	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Elective*		F2F,VC	2-3
General Education-Elective*		F2F,VC	2-3
General Education-Lab Sciences		F2F,VC	4
Fourth Semester (Spring):			
Core Curriculum	MUS 233 Music Theory IV	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Network Technology-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Diagnose and remedy many of the common causes of network failure in current network operating systems.
2. Demonstrate the ability to interconnect multiple networks and servers using current network operating systems.
3. Install additional PC workstations by using current network technologies and by properly configuring network hardware, software, and user accounts.
4. Determine with reasonable accuracy whether network user problems arise from the workstation, network cabling, network configuration, or network application; and take steps to correct the problems.
5. Demonstrate proficiency with a variety of networking technologies including, but not limited to, network routing, Linux, and Microsoft.

Course or program prerequisite(s) not included in the degree:

CIS 294 Field Experience in Computer Information Systems requires a declared major in a computer information systems discipline and permission of the cooperative education program coordinator.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
PSY 101 Introduction to Psychology requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 140 Introduction to Operating Systems	F2F,VC	3
Core Curriculum	CIS 150 Essentials of Networking	F2F,VC	3
Core Curriculum	CIS 160 Introduction to Information Security	F2F,VC	4
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 120 Introduction to Information Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 128 Linux Operating System	F2F,VC	4
Core Curriculum	CIS 236 Microsoft Workstation Operating Systems	F2F,VC	4
Core Curriculum	CIS 260 Service and Maintenance of PCs	F2F	4
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Third Semester (Fall):			
Core Curriculum	CIS 161 Network Security	F2F	4
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	CIS 229 Linux System Administration	F2F,VC	4
Core Curriculum	CIS 245 Microsoft Server and Active Directory	F2F	4
Core Curriculum	CIS 270 Systems Analysis	F2F or VC	4
Fourth Semester (Spring):			
Core Curriculum	CIS 262 Network Support and Troubleshooting	F2F	4
Core Curriculum	CIS 294 Field Experience in CIS	F2F	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts	PSY 101 Introduction to Psychology	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3

Total credits required: 66-67

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Nursing Assistant-Certificate

Location(s) Offered:

Benson Center, Douglas Campus, Santa Cruz Center, Sierra Vista Campus, and Willcox Center; and Benson High School, Bisbee High School, St. David High School, Tombstone High School, Valley Union High School, and Willcox High School

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required for basic-level nursing assistant certification by the Arizona State Board of Nursing.
2. Demonstrate skills in communication, patient safety, the nursing process, and specific patient care.
3. Demonstrate skills in cardiopulmonary resuscitation (CPR) and basic first aid.
4. Demonstrate an understanding of patient rights and legal and professional responsibilities.
5. Apply the knowledge and skills required to address basic physical, psychosocial, and cultural needs of patients, especially those in the geriatric population.

Course or program prerequisite(s) not included in the degree:

HLT 109 Nursing Assistant requires appropriate mathematics placement score (or see advisor) and appropriate reading placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	HLT 109 Nursing Assistant	F2F,ITV	5
Core Curriculum	HLT 111 CPR and First Aid*	F2F	1
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 6

Notes:

*Possession of a current American Heart Association CPR and First Aid certification for healthcare providers satisfies this course requirement.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Paramedicine-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus (Requires two summer sessions.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the legal, ethical, and professional conduct of an entry-level autonomous paramedic.
2. Demonstrate an understanding of the roles and responsibilities of an entry-level autonomous paramedic with regard to personal safety and wellness as well as to the safety of others.
3. Demonstrate self-confidence as an autonomous and effective team leader in the pre-hospital, hospital, and clinical environment.
4. Describe and perform various techniques for successful assessment and treatment of patients of all ages and all complaints.
5. Analyze the various considerations when determining ground versus air transport of a patient to an appropriate facility.
6. Demonstrate proficiency in all required terminal competencies as verified by the medical director.
7. Demonstrate the knowledge, skills, and abilities required for certification as a Nationally Registered Paramedic.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires English placement score (or see advisor).
PMD 101 Paramedicine I requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum (Summer I)	PMD 101 Paramedicine I	F2F	6*
General Education-Comp (Summer I)	ENG 101 Composition	F2F,VC	3
General Education-Lib Arts (Summer I)		F2F,VC	3
Core Curriculum	PMD 201 Paramedicine II	F2F	7
Core Curriculum	PMD 202 Paramedicine III	F2F	7
General Education-Math/Lab Sciences	BIO 156 Intro Bio for Allied Health or BIO 160 Intro to A&P	F2F or VC	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PMD 203 Paramedicine IV	F2F	10
Core Curriculum	PMD 203 Paramedicine IV	F2F	10
Third Semester (Fall):			
Core Curriculum (Summer I)	PMD 205 Paramedicine VI	F2F	9
General Education-Lib Arts (Summer I)		F2F,VC	3
Core Curriculum	PMD 206 Paramedicine VII	F2F	6
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Fourth Semester (Spring):			

Total credits required: 68-74

Notes:

*The program coordinator may waive PMD 101 for students who meet the course requirements.
Paramedicine courses are taught in eight-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Paramedicine-Certificate

Location(s) Offered:

Sierra Vista Campus (Requires two summer sessions.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the legal, ethical, and professional conduct of an entry-level autonomous paramedic.
2. Demonstrate an understanding of the roles and responsibilities of an entry-level autonomous paramedic with regard to personal safety and wellness as well as to the safety of others.
3. Demonstrate self-confidence as an autonomous and effective team leader in the pre-hospital, hospital, and clinical environment.
4. Describe and perform various techniques for successful assessment and treatment of patients of all ages and all complaints.
5. Analyze the various considerations when determining ground versus air transport of a patient to an appropriate facility.
6. Demonstrate proficiency in all required terminal competencies as verified by the medical director.
7. Demonstrate the knowledge, skills, and abilities required for certification as a Nationally Registered Paramedic.

Course or program prerequisite(s) not included in the degree:

PMD 101 Paramedicine I requires appropriate mathematics placement score (or see advisor) and RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum (Summer I)	PMD 101 Paramedicine I	F2F	6*
Core Curriculum	PMD 201 Paramedicine II	F2F	7
Core Curriculum	PMD 202 Paramedicine III	F2F	7
Second Semester (Spring):			
Core Curriculum	PMD 203 Paramedicine IV	F2F	10
Core Curriculum	PMD 204 Paramedicine V	F2F	10
Third Semester (Fall):			
Core Curriculum (Summer I)	PMD 205 Paramedicine VI	F2F	9
Core Curriculum	PMD 206 Paramedicine VII	F2F	6
Fourth Semester (Spring):			

Total credits required: 49-55

Notes:

*The program coordinator may waive PMD 101 for students who meet the course requirements.
Paramedicine courses are taught in eight-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Philosophy-Associate of Arts Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify, analyze, and articulate the history, key figures, and major branches of philosophy.
2. Conduct critical reading of selected classical and contemporary texts and analyze their connections to the individual, to society, and to other bodies of knowledge.
3. Engage in oral argumentation and write critical or analytical essays.
4. Identify, analyze, and articulate the elements of formal logic, symbolic logic, logical fallacies, induction, argument, and language.
5. Identify, analyze, and articulate the elements of moral philosophy with emphasis on the philosophical analysis of contemporary issues.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 151 College Algebra requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 151 College Algebra or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PHI 111 Intro to Philosophy [IW] or PHI 130 Ethics [IW]	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
General Education-Lab Sciences		F2F,VC	4
Third Semester (Fall):			
Core Curriculum	PHI 111 Intro to Philosophy [IW] or PHI 130 Ethics [IW]	F2F,VC	3
General Education-Humanities		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	PHI 113 Introduction to Logic and Language	F2F	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Physics (Astronomy Emphasis)-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus (The first two semesters of this degree can be completed on the Douglas Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify, formulate, and solve basic physics problems in classical mechanics related to the motion of objects.
2. Identify, formulate, and solve basic physics problems in electromagnetism related to electricity, magnetism, and electromagnetic fields.
3. Integrate natural sciences to build a solid foundation in physics applications using appropriate mathematical skills.
4. Design simple physics experiments based on the scientific method. Acquire the results of these experiments by analyzing and collecting data.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; and MAT 123 Developmental Mathematics Level III or higher.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics I or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences	CHM 151 General Chemistry I	F2F	4
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
General Education-Add Math/Lab Science	MAT 231 Calculus II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences	CHM 152 General Chemistry II	F2F	4
Elective*		F2F,VC	3
Elective*		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	PHY 230 Physics with Calculus I	F2F	4
General Education-Add Math/Lab Science	MAT 241 Calculus III	F2F	4
General Education-Arts		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective*		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	AST 180 Introduction to Astronomy	F2F,VC	4
Core Curriculum	PHY 231 Physics with Calculus II	F2F	4
General Education-Humanities		F2F,VC	3
Elective*		F2F,VC	3
Elective*		F2F,VC	1-3

Total credits required: 64

Notes:

Six credits of arts, humanities, or social behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Physics (Physical Science Emphasis)-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus (The first two semesters of this degree can be completed on the Douglas Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify, formulate, and solve basic physics problems in classical mechanics related to the motion of objects.
2. Identify, formulate, and solve basic physics problems in electromagnetism related to electricity, magnetism, and electromagnetic fields.
3. Integrate natural sciences to build a solid foundation in physics applications using appropriate mathematical skills.
4. Design simple physics experiments based on the scientific method. Acquire the results of these experiments by analyzing and collecting data.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; and MAT 123 Developmental Mathematics Level III or higher.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences	CHM 151 General Chemistry I	F2F	4
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
General Education-Add Math/Lab Science	MAT 231 Calculus II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences	CHM 152 General Chemistry II	F2F	4
Elective*		F2F,VC	3
Elective*		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	PHY 230 Physics with Calculus I	F2F	4
General Education-Add Math/Lab Science	MAT 241 Calculus III	F2F	4
General Education-Arts		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective*		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	GEO 101 Physical Geography	F2F,VC	4
Core Curriculum	PHY 231 Physics with Calculus II	F2F	4
General Education-Humanities		F2F,VC	3
Elective*		F2F,VC	3
Elective*		F2F,VC	1-3

Total credits required: 64

Notes:

Six credits of arts, humanities, or social behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Physics (Physics Emphasis)-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus (The first two semesters of this degree can be completed on the Douglas Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Identify, formulate, and solve basic physics problems in classical mechanics related to the motion of objects.
2. Identify, formulate, and solve basic physics problems in electromagnetism related to electricity, magnetism, and electromagnetic fields.
3. Integrate natural sciences to build a solid foundation in physics applications using appropriate mathematical skills.
4. Design simple physics experiments based on the scientific method. Acquire the results of these experiments by analyzing and collecting data.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; and MAT 123 Developmental Mathematics Level III or higher.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 College Algebra and MAT 182 Plane Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences	CHM 151 General Chemistry I	F2F	4
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
General Education-Add Math/Lab Science	MAT 231 Calculus II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences	CHM 152 General Chemistry II	F2F	4
Elective*		F2F,VC	3
Elective*		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	MAT 262 Differential Equations	F2F	3
Core Curriculum	PHY 230 Physics with Calculus I	F2F	4
General Education-Add Math/Lab Science	MAT 241 Calculus III	F2F	4
General Education-Arts		F2F,VC	3
Elective*		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	MAT 252 Introduction to Linear Algebra	F2F	3
Core Curriculum	PHY 231 Physics with Calculus II	F2F	4
General Education-Humanities		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective*		F2F,VC	2-4

Total credits required: 64

Notes:

Six credits of arts, humanities, or social behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Professional Administrative Assistant-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to identify and employ appropriate business etiquette, communication styles, teamwork, and dress for business office environments.
2. Explain and recommend best practices for entry-level office positions.
3. Demonstrate the skills required to be successful as administrative assistants and executive secretaries.
4. Demonstrate the ability to use ten-key touch with speed and accuracy.
5. Apply hands-on experience in a business environment.

Course or program prerequisite(s) not included in the degree:

BUS 106 Administrative Assistant Skills I requires CIS 116 and keyboarding skills of 30 WPM.
CIS 116 Computer Essentials is a prerequisite for CIS 181 and other core courses; it must be taken prior to starting this four-semester sequencing.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BUS 104 Business Math or BUS 146 Intro Accounting	F2F or VC	3
Core Curriculum	BUS 160 Essential Workplace Success Skills	ITV,VC	3
Core Curriculum	CIS 181 Computer Applications	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials* or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 106 Administrative Assistant Skills I	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Third Semester (Fall):			
Core Curriculum	BUS 206 Administrative Assistant Skills II	F2F	4
Core Curriculum	BUS 207 Office Administration	F2F	3
Core Curriculum	BUS 209 Business Speech Communications	F2F	3
Core Curriculum	BUS 210 Automated Office Procedures	F2F	3
Core Curriculum	BUS 216 Administrative Assistant Skills III	F2F	4
Fourth Semester (Spring):			
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum	BUS 211 Automated Office Procedures	F2F	3
Core Curriculum	BUS 217 Administrative Assistant Skills IV	F2F	4
Core Curriculum	CIS 268 Technical Presentations	F2F,VC	3
Elective		F2F,VC	2-3

Total credits required: 64

Notes:

*CIS 116 Computer Essentials is a prerequisite for CIS 181 and other core courses; it must be taken prior to starting this four-semester sequencing.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Professional Pilot Technology (Flight Instructor)-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills needed to safely exercise the privileges and responsibilities of a commercial/instrument pilot acting as pilot-in-command of a multi-engine airplane.
2. Demonstrate the knowledge and skills needed to pass the Commercial Pilot Certificate, multi-engine land rating, as outlined in the appropriate FAA Practical Test Standards and Federal Aviation Regulations.
3. Identify aircraft design, engine design, airport and aviation support facilities, and the practical economics of airline operations as they support the air transportation industry.
4. Apply knowledge of air traffic control (ATC) technology and terminology, career requirements, components, and the function of the National Airspace System and Terminal.
5. Demonstrate an understanding of en route ATC facilities as they support the ATC system.
6. Identify aviation ground operations, technical operations, flight operations, and system operations as they support airline operations and management.
7. State highlights in the history of aviation from its very beginnings to current endeavors.
8. Explain pilot psychology, physiology, human factors, aircraft technology, crew resource management, and accident review and investigation as they relate to aspects of aviation safety.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
PFT 101 Private Pilot Ground School requires acceptance into the aviation program.
This program requires PFT 100 Introduction to Aviation.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	PFT 101 Private Pilot Ground School	F2F,VC	5
Core Curriculum	PFT 111 Solo Flight Preparation	F2F	3.5
Core Curriculum	PFT 112 Cross-Country Navigation	F2F	1.5
Core Curriculum	PFT 113 Private Pilot Certification	F2F	1
Core Curriculum	PFT 122 Aviation Weather	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PFT 204 Instrument Rating Ground School	F2F,VC	5
Core Curriculum	PFT 206 Aircraft Systems	F2F,VC	3
Core Curriculum	PFT 214 Instrument Rating Flight I	F2F	3.5
Core Curriculum	PFT 215 Instrument Rating Flight II	F2F	1.5
Core Curriculum-Composition	ENG 102 English Composition	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	PFT 121 Commercial Flight I	F2F	3
Core Curriculum	PFT 130 Commercial Pilot Ground School	F2F,VC	5
Core Curriculum	PFT 131 Commercial Flight II	F2F	3
Core Curriculum	PFT 218 Commercial Flight III	F2F	1
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Fourth Semester (Spring):			
Core Curriculum	PFT 230 Flight Instructor-Fundamentals Ground Schl	F2F	3
Core Curriculum	PFT 231 Flight Instructor-Airplane Ground School	F2F	5
Core Curriculum	PFT 235 Flight Instructor-Airplane Stage I	F2F	1.5
Core Curriculum	PFT 236 Flight Instructor-Airplane Stage II	F2F	1.5
General Education-Liberal Arts		F2F,VC	3
General Education-Liberal Arts		F2F,VC	3

Total credits required: 68-69

Notes:

PFT courses are taught in 10.5- and 21-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Professional Pilot Technology (Multi-Engine)-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills needed to safely exercise the privileges and responsibilities of a commercial/instrument pilot acting as pilot-in-command of a multi-engine airplane.
2. Demonstrate the knowledge and skills needed to pass the Commercial Pilot Certificate, multi-engine land rating, as outlined in the appropriate FAA Practical Test Standards and Federal Aviation Regulations.
3. Identify aircraft design, engine design, airport and aviation support facilities, and the practical economics of airline operations as they support the air transportation industry.
4. Apply knowledge of air traffic control (ATC) technology and terminology, career requirements, components, and the function of the National Airspace System and Terminal.
5. Demonstrate an understanding of en route ATC facilities as they support the ATC system.
6. Identify aviation ground operations, technical operations, flight operations, and system operations as they support airline operations and management.
7. State highlights in the history of aviation from its very beginnings to current endeavors.
8. Explain pilot psychology, physiology, human factors, aircraft technology, crew resource management, and accident review and investigation as they relate to aspects of aviation safety.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
PFT 101 Private Pilot Ground School requires acceptance into the aviation program.
This program requires PFT 100 Introduction to Aviation.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	PFT 101 Private Pilot Ground School	F2F,VC	5
Core Curriculum	PFT 111 Solo Flight Preparation	F2F	3.5
Core Curriculum	PFT 112 Cross-Country Navigation	F2F	1.5
Core Curriculum	PFT 113 Private Pilot Certification	F2F	1
Core Curriculum	PFT 122 Aviation Weather	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PFT 204 Instrument Rating Ground School	F2F,VC	5
Core Curriculum	PFT 206 Aircraft Systems	F2F,VC	3
Core Curriculum	PFT 214 Instrument Rating Flight I	F2F	3.5
Core Curriculum	PFT 215 Instrument Rating Flight II	F2F	1.5
Core Curriculum-Composition	ENG 102 English Composition	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	PFT 121 Commercial Flight I	F2F	3
Core Curriculum	PFT 130 Commercial Pilot Ground School	F2F,VC	5
Core Curriculum	PFT 131 Commercial Flight II	F2F	3
Core Curriculum	PFT 218 Commercial Flight III	F2F	1
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
Fourth Semester (Spring):			
Core Curriculum	PFT 210 Multi-Engine Rating Ground School	F2F,VC	1
Core Curriculum	PFT 211 Multi-Engine Rating Flight	F2F	1
General Education-Liberal Arts		F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	4-5

Total credits required: 64

Notes:

PFT courses are taught in 10.5- and 21-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Professional Pilot Technology-Associate of General Studies Degree

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills needed to safely exercise the privileges and responsibilities of a commercial/instrument pilot acting as pilot-in-command of a multi-engine airplane.
2. Demonstrate the knowledge and skills needed to pass the Commercial Pilot Certificate, multi-engine land rating, as outlined in the appropriate FAA Practical Test Standards and Federal Aviation Regulations.
3. Identify aircraft design, engine design, airport and aviation support facilities, and the practical economics of airline operations as they support the air transportation industry.
4. Apply knowledge of air traffic control (ATC) technology and terminology, career requirements, components, and the function of the National Airspace System and Terminal.
5. Demonstrate an understanding of en route ATC facilities as they support the ATC system.
6. Identify aviation ground operations, technical operations, flight operations, and system operations as they support airline operations and management.
7. State highlights in the history of aviation from its very beginnings to current endeavors.
8. Explain pilot psychology, physiology, human factors, aircraft technology, crew resource management, and accident review and investigation as they relate to aspects of aviation safety.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
PFT 101 Private Pilot Ground School requires acceptance into the aviation program.
This program requires PFT 100 Introduction to Aviation.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	PFT 101 Private Pilot Ground School	F2F,VC	5
Core Curriculum	PFT 111 Solo Flight Preparation	F2F	3.5
Core Curriculum	PFT 112 Cross-Country Navigation	F2F	1.5
Core Curriculum	PFT 113 Private Pilot Certification	F2F	1
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PFT 204 Instrument Rating Ground School	F2F,VC	5
Core Curriculum	PFT 214 Instrument Rating Flight I	F2F	3.5
Core Curriculum	PFT 215 Instrument Rating Flight II	F2F	1.5
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	PFT 121 Commercial Flight I	F2F	3
Core Curriculum	PFT 130 Commercial Pilot Ground School	F2F,VC	5
Core Curriculum	PFT 131 Commercial Flight II	F2F	3
Core Curriculum	PFT 218 Commercial Flight III	F2F	1
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Fourth Semester (Spring):			
General Education-Arts		F2F,VC	3
General Education-Elective*		F2F,VC	3-4
General Education-For Lang or Comm		F2F,VC	3-4
General Education-Lab Sciences		F2F,VC	4
General Education-Social & Beh Sciences		F2F,VC	3

Total credits required: 68

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise/.edu/AGEC

*General education electives must be chosen from the general education list or HPE 179.

PFT courses are taught in 10.5- and 21-week sessions.

Acceptance into the professional pilot program requires an interview with the director of aviation plus completion of admission requirements and departmental acceptance. Admission to Cochise College does not guarantee acceptance into the pilot program.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Psychology-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus (Students at the Santa Cruz Center may take PSY 250 in the 2nd semester; and PSY 290 and PSY 230 in the 3rd semester, or PSY 290 in the 3rd semester and PSY 240 in the 4th semester.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of, analyze, and articulate the history of psychology, research methods, biopsychology, sensation and perception, consciousness, learning, and memory.
2. Demonstrate an understanding of, analyze, and articulate the concepts of motivation, emotion, human development, personality, and abnormal behavior and therapy.
3. Demonstrate an understanding of, analyze, and articulate the basic concepts of experimental design, measurement, and descriptive and inferential statistics as applied to psychological variables.
4. Review and analyze scientific literature, design and implement experiments, collect and analyze data, interpret results, and report experimental findings using A.P.A. format.
5. Demonstrate an understanding of and analyze the basic concepts, theories, and research pertaining to human interaction, psychological theories, and human development.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	PSY 101 Introduction to Psychology	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PSY 210 IW, PSY 230 IW, PSY 240 IW, or PSY 270IW	F2F or VC	3
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Elective**		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	PSY 250 Intro to Psych Research, Measurements and Stats IW	F2F,VC	3
General Education-Elective*		F2F,VC	2-3
General Education-Humanities		F2F,VC	3
General Education-Social & Beh Sciences		F2F,VC	3
Elective**		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	PSY 290 Experimental Psychology IW	F2F	4
General Education-Elective*		F2F,VC	2-3
Elective**		F2F,VC	3
Elective**		F2F,VC	2-4

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Receptionist-Certificate

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Produce documents in Word, Excel, and PowerPoint with clarity and accuracy.
2. Demonstrate an understanding of mathematical concepts and apply them to solve business problems.
3. Demonstrate the skills needed to perform receptionist tasks involving customer service, word processing, and document preparation.
4. Apply basic business mathematics and communication skills to a professional work environment.

Course or program prerequisite(s) not included in the degree:

BUS 106 Administrative Assistant Skills I requires keyboarding skills of 30 WPM.
BUS 167 Business Communications requires appropriate English placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BUS 104 Business Math or BUS 146 Introduction to Accounting	F2F or VC	3
Core Curriculum	BUS 160 Essential Workplace Success Skills	ITV,VC	3
Core Curriculum	CIS 116 Computer Essentials	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BUS 106 Administrative Assistant Skills I	F2F	4
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Elective*		F2F,VC	2-3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 18-19

Notes:

*Field experience course or any CIS or BUS course not used in the certificate is recommended.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Nursing-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus (Requires one year of program prerequisites.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to be licensed as a registered nurse by examination (NCLEX-RN) of the Arizona State Board of Nursing.
2. Provide quality care to patients by applying elements such as the nursing process and safety procedures, as well as wellness and improved lifespan practices.
3. Recognize and practice cultural awareness by demonstrating respect for human differences, and demonstrate cultural competence as a manager of patient care.
4. Demonstrate competency in critical thinking, evidence-based practice, communication, and collaboration.
5. Practice professional values and behaviors as members of the nursing profession through responsibility to their role, to lifelong learning, and to legal and ethical issues.

Course or program prerequisite(s) not included in the degree:

BIO 201 Human Anatomy and Physiology I requires BIO 156 Introductory Biology for Allied Health or BIO 181 General Biology I (for majors).
ENG 101 Composition requires appropriate English placement score (or see advisor).
NUR 121A Medication Math I requires appropriate mathematics placement score (or see advisor) and acceptance into the nursing program.
This program requires RDG 122 Reading Critically or exemption.

Additional program requirements:
Students must complete courses during or prior to the semester listed in the program outline.
All BIO and NUR courses must be completed with a grade of B or better.
BIO 201 and BIO 202 require a prerequisite course. Science courses must have been completed within the last seven (7) years of admission to the Cochise College nursing program with a grade of B or better.
NUR 203 must have been completed within the last five (5) years of admission to the Cochise College nursing program with a grade of B or better.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	NUR 122 Nursing I	F2F	8
General Education-Liberal Arts	PSY 101 Introduction to Psychology	F2F,VC	3
General Education-Mathematics	NUR 121A Medication Math I	F2F	2
Second Semester (Spring):			
Core Curriculum	NUR 123 Nursing II-A	F2F	5
Core Curriculum	NUR 124 Nursing II-B	F2F	5
General Education-Liberal Arts	PSY 240 Developmental Psychology	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	NUR 232 Nursing III	F2F	10
General Education-Mathematics	NUR 121B Medication Math II	F2F	2
Fourth Semester (Spring):			
Core Curriculum	BIO 205 Microbiology	F2F	4
Core Curriculum	NUR 233 Nursing IV	F2F	10

Total credits required: 69

Notes:

Year 1 program prerequisites include ENG 101 Composition (General Education-Composition), ENG 102 English Composition (General Education-Composition), NUR 203 Update on Pharmacology (General Education-Technology Literacy substitution), BIO 201 Human Anatomy and Physiology I (Core Curriculum), and BIO 202 Human Anatomy and Physiology II (Core Curriculum), totaling 17 credits. An additional 52 credits of core courses equal the 69 required degree credits.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Respiratory Therapy-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus (Requires one year of program prerequisites.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate critical thinking and problem solving skills for efficient patient management and provide appropriate treatment interventions.
2. Demonstrate the skills needed to manage stressful situations that require quick thinking and synchronized coordination of varying activities.
3. Demonstrate manual dexterity, eye-hand coordination, fine and gross motor skills, and tactile ability, all required to perform duties as a respiratory therapist.
4. Demonstrate visual and auditory ability to assess a patient's condition and administer effective therapy.
5. Perform duties requiring extended period of standing, stooping, squatting, bending, pushing, and pulling.
6. Demonstrate efficient verbal and non-verbal communication skills with internal and external clients.
7. Set up, initiate, and maintain non-invasive and invasive mechanical ventilation.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	RTH 110 Introduction to Respiratory Care	F2F	4
Core Curriculum	RTH 112 Respiratory Physiology	F2F	4
Core Curriculum	RTH 121 Basic Therapeutics	F2F	4
Core Curriculum	RTH 123 Basic Assessment and Monitoring	F2F	4
Second Semester (Spring):			
Core Curriculum	RTH 124 Pharmacology for Respiratory Care	F2F	3
Core Curriculum	RTH 162 Principles of Mechanical Ventilation	F2F	3
Core Curriculum	RTH 235 Clinical Procedures I	F2F	4
Core Curriculum	RTH 246 Cardiorespiratory Disorders I	F2F	3
Third Semester (Fall):			
Core Curriculum	RTH 241 Critical Care Therapeutics	F2F	4
Core Curriculum	RTH 243 Advanced Assessment and Monitoring	F2F	4
Core Curriculum	RTH 245 Clinical Procedures II	F2F	5
Fourth Semester (Spring):			
Core Curriculum	RTH 251 Advanced and Specialty Therapeutics	F2F	5
Core Curriculum	RTH 255 Clinical Procedures III	F2F	5
Core Curriculum	RTH 256 Cardiorespiratory Disorders II	F2F	3
Core Curriculum	RTH 257 Clinical Applications and Prof Development	F2F	1

Total credits required: 83-84

Notes:

Year 1 program prerequisites include ENG 101 Composition (General Education-Composition), ENG 102 English Composition (General Education-Composition), MAT 123 Developmental Mathematics Level III or higher (General Education-Mathematics), two liberal arts courses with a PSY and/or SOC prefix* (General Education-Liberal Arts), BIO 160 Introduction to Human Anatomy and Physiology** (General Education-Technology Literacy substitute), BIO 156 Introductory Biology for Allied Health (Core Curriculum), and BIO 205 Microbiology (Core Curriculum) totaling 19-20 general education credits and 8 core curriculum credits. An additional 56 credits of core courses equal the 83-84 required degree credits.

*Select PSY 101, PSY 103, PSY 218, PSY 230, PSY 240, PSY 270, SOC 101, SOC 160, SOC 170, SOC 202, SOC 207, or SOC 230.
**BIO 160 Introduction to Human Anatomy and Physiology replaces the technology literacy requirement in the respiratory therapy degree.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Social Sciences (Anthropology Emphasis)-Associate of Arts Degree

Location(s) Offered:

Douglas Campus, Sierra Vista Campus, and Virtual Campus (Online students may take ANT 102 and either ANT 110 or ANT 287 in the 3rd semester; and ANT 101 and ANT 285 in the 4th semester.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Understand, analyze, and articulate the major topics in anthropology.
2. Demonstrate an understanding of, analyze, and articulate human biological origins, based upon paleontological and archaeological records.
3. Analyze the evolution of the United States' political, economic, social, cultural and geographic development from colonization to the present, as well as causes and consequences of historical events.
4. Identify and evaluate the historical, political, social, and economic forces that have shaped present-day United States government, as well as the underpinnings of the U. S. Constitution.
5. Identify and detail the conceptual framework of the primary sociological theorists and of the fundamental sociological perspectives.
6. Determine cultural forces that affect human life by comparing early humankind with contemporary cultures and by assessing the value of diversity in human cultural adaptation.
7. Analyze the effects of environment and geography on human evolution and cultural development and on the human physical and cultural development process.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences	SOC 101 Introduction to Sociology	F2F,VC	3
General Education-Social & Beh Sciences	HIS 110 History of the United States 1607-1877	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	HIS 111 History of the United States Since 1877	F2F,VC	3
Core Curriculum	POS 110 American National Government	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Third Semester (Fall):			
Core Curriculum	ANT 101 The Origin and Antiquity of Humankind	ITV	3
Core Curriculum	ANT 285 Prehistoric Cultures of North America IW	ITV	3
General Education-Elective*		F2F,VC	3
General Education-Humanities		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	ANT 102 Society and Culture	ITV	3
Core Curriculum	ANT 110 Exploring Archaeology or ANT 287 Archaeology of SW	ITV	3
Core Curriculum***		F2F,VC	3
General Education-Elective*		F2F,VC	1-3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
***Select other area of emphasis.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Social Sciences (History Emphasis)-Associate of Arts Degree

Location(s) Offered:

Douglas Campus, Sierra Vista Campus, and Virtual Campus (HIS 229 and HIS 230 are offered only through the Virtual Campus. Online students may take ANT 101 in the 2nd semester; HIS 111, HIS 230, and HIS 242 in the 3rd semester; and HIS 229 and HIS 241 in the 4th semester.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Understand, analyze, and articulate the major topics in history.
2. Demonstrate an understanding of, analyze, and articulate human biological origins, based upon paleontological and archaeological records.
3. Analyze the evolution of the United States' political, economic, social, cultural and geographic development from colonization to the present, as well as causes and consequences of historical events.
4. Identify and evaluate the historical, political, social, and economic forces that have shaped present-day United States government, as well as the underpinnings of the U. S. Constitution.
5. Identify and detail the conceptual framework of the primary sociological theorists and of the fundamental sociological perspective.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences	SOC 101 Introduction to Sociology	F2F,VC	3
General Education-Social & Beh Sciences	HIS 110 History of the United States 1607-1877	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	HIS 111 History of the United States Since 1877	F2F,VC	3
Core Curriculum	POS 110 American National Government	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Third Semester (Fall):			
Core Curriculum	ANT 101 The Origin and Antiquity of Humankind	ITV	3
Core Curriculum	HIS 230 History of Mexico II [IW]	VC	0-3
Core Curriculum	HIS 240 Western Civ I [IW] or HIS 242 Western Civ III [IW]	F2F or VC	3
General Education-Elective*		F2F,VC	3
General Education-Humanities		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	HIS 229 History of Mexico I [IW]	VC	0-3
Core Curriculum	HIS 241 Western Civ II [IW] or HIS 242 Western Civ III [IW]	F2F or VC	3
Core Curriculum***		F2F,VC	3
General Education-Elective*		F2F,VC	1-3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
***Select other area of emphasis.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Social Sciences (Political Science Emphasis)-Associate of Arts Degree

Location(s) Offered:

Douglas Campus, Sierra Vista Campus, and Virtual Campus (Online students may take ANT 101 in the 2nd semester; POS 230 and POS 240 in the 3rd semester; and POS 220 in the 4th semester.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Understand, analyze, and articulate the major topics in political science.
2. Demonstrate an understanding of, analyze, and articulate human biological origins, based upon paleontological and archaeological records.
3. Analyze the evolution of the United States' political, economic, social, cultural and geographic development from colonization to the present, as well as causes and consequences of historical events.
4. Identify and evaluate the historical, political, social, and economic forces that have shaped present-day United States government, as well as the underpinnings of the U. S. Constitution.
5. Identify and detail the conceptual framework of the primary sociological theorists and of the fundamental sociological perspectives.
6. Critically analyze political events, persons, processes and principles, institutions, forces, theories, and practices.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences	SOC 101 Introduction to Sociology	F2F,VC	3
General Education-Social & Beh Sciences	HIS 110 History of the United States 1607-1877	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	HIS 111 History of the United States Since 1877	F2F,VC	3
Core Curriculum	POS 110 American National Government	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Third Semester (Fall):			
Core Curriculum	ANT 101 The Origin and Antiquity of Humankind	ITV	3
Core Curriculum	POS 220 Federal and Arizona Constitution [IW]	F2F,VC	3
General Education-Elective*		F2F,VC	3
General Education-Humanities		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	POS 230 World Politics [IW]	F2F	3
Core Curriculum	POS 240 Comparative Politics	F2F	3
Core Curriculum***		F2F,VC	3
General Education-Elective*		F2F,VC	1-3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
***Select other area of emphasis.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Social Sciences (Sociology Emphasis)-Associate of Arts Degree

Location(s) Offered:

Douglas Campus, Sierra Vista Campus, and Virtual Campus (Online students may take ANT 101 in the 2nd semester; HIS 111 and either SOC 160 or SOC 202 in the 3rd semester; and SOC 160 or SOC 212, and SOC 207 or SOC 210 in the 4th semester.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Understand, analyze, and articulate the major topics in sociology.
2. Demonstrate an understanding of, analyze, and articulate human biological origins, based upon paleontological and archaeological records.
3. Analyze the evolution of the United States' political, economic, social, cultural and geographic development from colonization to the present, as well as causes and consequences of historical events.
4. Identify and evaluate the historical, political, social, and economic forces that have shaped present-day United States government, as well as the underpinnings of the U. S. Constitution.
5. Identify and detail the conceptual framework of the primary sociological theorists and of the fundamental sociological perspective.
6. Describe the sociological concepts of socialization, social interaction, culture, deviance, social control and forces, marginalization, global interdependence, and social stratification and organizations.
7. Describe the sociological concepts of race, ethnicity, gender, social roles and statuses, discrimination, and prejudice.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences	SOC 101 Introduction to Sociology	F2F,VC	3
General Education-Social & Beh Sciences	HIS 110 History of the United States 1607-1877	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	HIS 111 History of the United States Since 1877	F2F,VC	3
Core Curriculum	POS 110 American National Government	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Lab Sciences		F2F,VC	4
Third Semester (Fall):			
Core Curriculum	ANT 101 The Origin and Antiquity of Humankind	ITV	3
Core Curriculum	SOC 210 Marriage and Family [IW] or SOC 230 Human Sexuality	F2F	3
Core Curriculum	SOC 212 Women and Men in a Changing Society [IW]	F2F	3
General Education-Elective*		F2F,VC	3
General Education-Humanities		F2F,VC	3
Elective**		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	SOC 160 Ethnic Groups [IW] or SOC 202 Social Problems [IW]	F2F or ITV	3
Core Curriculum***		F2F,VC	3
General Education-Elective*		F2F,VC	1-3
Elective**		F2F,VC	3
Elective**		F2F,VC	0-2

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.
***Select other area of emphasis.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Social Work-Associate of Arts Degree

Location(s) Offered:

Virtual Campus (This degree may be completed at the Douglas Campus, the Santa Cruz Center, and the Sierra Vista Campus if SOC 207 is taken through the Virtual Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Analyze and articulate the basics of national and international macroeconomy: supply and demand as applied to macroeconomic problems, national income accounting, fiscal policy, monetary policy, and trade.
2. Analyze and articulate the major topics of basic psychology; developmental psychology; psychological research, measurements, and statistics; and experimental psychology.
3. Demonstrate an understanding of and analyze traditional social work institutions and contemporary human services organizations, locally and globally, including the social insurance system.
4. Demonstrate an understanding of, analyze, and use the business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences*	BIO 156 Intro Bio Ald Hlth, BIO 160 Intro A&P, or BIO 181 GenBio I	F2F or VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F,VC	3-5
General Education-Social & Beh Sciences	SOC 101 Introduction to Sociology	F2F,VC	3
Language Requirement		F2F,VC	4
Second Semester (Spring):			
Core Curriculum	PSY 101 Introduction to Psychology	F2F,VC	3
Core Curriculum	SOC 207 Introduction to Social Welfare	VC	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Humanities	PHI 111 Intro to Philosophy IW or PHI 130 Ethics IW	F2F,VC	3
Language Requirement		F2F,VC	4
Third Semester (Fall):			
Core Curriculum	ECN 201 Introduction to Macroeconomics IW	F2F,VC	3
Core Curriculum	BUS 219 Bus Stats, PSY 250 Psych Res IW, or PSY 290 Exp Psych IW	F2F or VC	3-4
General Education-Elective**		F2F,VC	2-3
General Education-Lab Sciences*		F2F,VC	4
General Education-Social & Beh Sciences	SOC 160 Ethnic Groups IW or AJS 101 Intro to Admin of Justice	F2F,VC	3
Elective*** or Language Requirement		F2F,VC	3-4
Fourth Semester (Spring):			
Core Curriculum	PSY 240 Developmental Psychology IW	F2F,VC	3
General Education-Arts		F2F,VC	3
General Education-Elective**		F2F,VC	2-3
Elective*** or Language Requirement		F2F,VC	3-4
Elective***		F2F,VC	0-6

Total credits required: 64-67

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*Laboratory sciences must include BIO 160 or BIO 201.
**General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
***Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Sous Chef Apprentice-Certificate

Location(s) Offered:

Fort Huachuca Center

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply sanitation and safety procedures in the use of culinary tools and equipment.
2. Demonstrate an understanding of purchasing, receiving, storage, and issuing controls, while applying the basic mathematical formulas for food and labor costs.
3. Assemble and serve an international banquet.
4. Plan and create a menu that incorporates theme, concept, nutrition, balance of flavor, proper preparation, cooking techniques, terminology, proper serving, and explanation of completed dishes.
5. Demonstrate the cooking and leadership skills of a chef de cuisine by employing restaurant-style cookery, to include use of garde manger, saucier, and baking techniques.

Course or program prerequisite(s) not included in the degree:

CUL 204 Food Service Purchasing and Control requires BUS 104 Business Mathematics or appropriate mathematics placement score (or see advisor).
CUL 224 Field Experience in Culinary Arts requires a declared major in culinary arts, and permission and approval of the cooperative education coordinator.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CUL 107 Restaurant Sanitation	F2F	3
Core Curriculum	CUL 215 Cooking Essentials	F2F	3
Core Curriculum	CUL 220 Breads and Baking Theory	F2F	3
Core Curriculum	CUL 221 Pastry Basics	F2F	3
Second Semester (Spring):			
Core Curriculum	CUL 225 Garde Manger I	F2F	3
Core Curriculum	CUL 226 Garde Manger II	F2F	3
Core Curriculum	CUL 242 Dining Service Management	F2F	3
Third Semester (Fall):			
Core Curriculum	CUL 105 Nutrition in Food Service	F2F	3
Core Curriculum	CUL 204 Food Service Purchasing and Control	F2F	3
Core Curriculum	CUL 217 Saucier	F2F	3
Core Curriculum	CUL 275 International Cuisine	F2F	3
Fourth Semester (Spring):			
Core Curriculum	CUL 224 Field Experience in Culinary Arts	F2F	1-4
Core Curriculum	CUL 280 Advanced Tech in Gourmet Food Prep I	F2F	3
Core Curriculum	CUL 281 Advanced Tech in Gourmet Food Prep II	F2F	3

Total credits required: 40-43

Notes:

CUL courses are taught in 8-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Theatre Arts-Associate of Arts Degree

Location(s) Offered:

Douglas Campus and Sierra Vista Campus (THE 103 is offered only through the Virtual Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate an understanding of and analyze theories of dramatic art and practice in acting situations: basic acting techniques, theatrical vocabulary and comportment, and character and script analysis.
2. Demonstrate an understanding of, analyze, and articulate the history and tradition of Western theatre and its representative drama, from classical to contemporary.
3. Examine and apply advanced techniques of acting through physical and vocal expression, improvisation, and scene work, with emphasis on the actor's approach to characterization.
4. Demonstrate an understanding of, analyze, and articulate the structural elements of major dramatic forms and styles.
5. Review representative plays and analyze their structures in relationship to modes of presentation and the resulting effects.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 142 Survey of College Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	THE 101 Acting I	F2F	3
General Education-Arts		F2F, VC	3
General Education-Composition	ENG 101 Composition	F2F, VC	3
General Education-Lab Sciences		F2F, VC	4
General Education-Mathematics	MAT 142 Survey of College Mathematics or higher	F2F, VC	3-5
Second Semester (Spring):			
Core Curriculum	THE 103 Introduction to the Theatre	VC	3
General Education-Composition	ENG 102 English Composition	F2F, VC	3
General Education-Lab Sciences		F2F, VC	4
General Education-Social & Beh Sciences		F2F, VC	3
Elective**		F2F, VC	3
Third Semester (Fall):			
Core Curriculum	THE 201 Acting II	F2F	3
General Education-Elective*		F2F, VC	2-3
General Education-Humanities		F2F, VC	3
General Education-Social & Beh Sciences		F2F, VC	3
Elective**		F2F, VC	3
Elective**		F2F, VC	0-2
Fourth Semester (Spring):			
Core Curriculum	THE 220 Dramatic Structure	F2F	3
General Education-Elective*		F2F, VC	2-3
Elective**		F2F, VC	3
Elective**		F2F, VC	3
Elective**		F2F, VC	3

Total credits required: 64

Notes:

Six credits of arts, humanities, social and behavioral sciences, or general education electives must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.
University non-English language requirements vary. Check with your advisor.

*General education electives must be chosen from the general education list. See www.cochise.edu/AGEC.
**Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com. The Theatre Arts Department recommends THE 110 and COM 102.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Unmanned Aerial Vehicle Flight Operator-Associate of Applied Science Degree

Location(s) Offered:

Fort Huachuca Center (This degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Apply the techniques required to effectively employ and retrieve an Unmanned Aerial Vehicle (UAV) in modern operational environments.
2. Demonstrate an understanding of aviation regulations and communications, and of the UAV's aerodynamic characteristics, special features, and major components.
3. Apply the knowledge and skills required to safely operate the aircraft.
4. Perform reconnaissance, surveillance, and target acquisition in support of ground forces.
5. Demonstrate the skills required to interpret UAV electro-optical and infrared video, and provide rapid feedback on target identification and activities.

Course or program prerequisite(s) not included in the degree:

Military credit toward this degree may be based on skill level, training, and/or coursework from military schools attended.
This program is restricted to Department of Defense personnel and contractors with sufficient, verifiable training. See an academic advisor for details.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
See note below.			
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 64

Notes:

The Unmanned Aerial Vehicle Flight Operator Associate of Applied Science degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Unmanned Aircraft Systems and Operations-Associate of Applied Science Degree

Location(s) Offered:

Douglas Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the theoretical knowledge and practical skills to safely employ unmanned aircraft systems, incorporating the aerial vehicle, mission payload, and flight operations.
2. Plan and employ unmanned aircraft systems to collect information requested by clients.
3. Operate unmanned aircraft systems within the national airspace system and comply with all current rules and regulations.
4. Analyze full motion video and interpret, at an advanced level, the images provided.
5. Prepare and present written and oral reports that include mission objective, methodology, outcomes, and recommendations to clients in an understandable and concise manner.
6. Demonstrate an understanding of en route air traffic control (ATC) facilities as they support the ATC system.
7. Apply knowledge of air traffic control (ATC) technology and terminology, career requirements, components, and the function of the National Airspace System and Terminal.

Course or program prerequisite(s) not included in the degree:

CIS 179 Applied Technical Writing requires RDG 122 Reading Critically or exemption.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
PFT 101 Private Pilot Ground School requires acceptance into the aviation program.
This program requires PFT 100 Introduction to Aviation.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	PFT 101 Private Pilot Ground School	F2F,VC	5
Core Curriculum	PFT 111 Solo Flight Preparation	F2F	3.5
Core Curriculum	PFT 112 Cross-Country Navigation	F2F	1.5
Core Curriculum	PFT 113 Private Pilot Certification	F2F	1
Core Curriculum	PFT 122 Aviation Weather	F2F,VC	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	PFT 204 Instrument Rating Ground School	F2F,VC	5
Core Curriculum	PFT 206 Aircraft Systems	F2F,VC	3
Core Curriculum	PFT 214 Instrument Rating Flight I	F2F	3.5
Core Curriculum	PFT 215 Instrument Rating Flight II	F2F	1.5
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Third Semester (Fall):			
Core Curriculum	UAS 101 Introduction to Unmanned Aircraft Systems	F2F	3
Core Curriculum	UAS 121 Remote Sensing and Imagery	F2F	3
General Education-Liberal Arts		F2F,VC	3
General Education-Mathematics	MAT 123 Developmental Math Level III or higher	F2F,VC	3-4
General Education-Technology Literacy	CIS 116 Computer Essentials	F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	UAS 201 UAS Pilot and Payload Operator	F2F	8
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
General Education-Liberal Arts		F2F,VC	3
Elective		F2F,VC	1-2

Total credits required: 64

Notes:

Courses in this program are taught in 8-, 10.5-, 16-, and 21-week sessions.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Unmanned Aircraft Systems Technician-Associate of Applied Science Degree

Location(s) Offered:

Fort Huachuca Center (This degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the knowledge and skills required to use specialty tools and to perform maintenance inspections, assembly, disassembly, and fault isolation of aircraft systems.
2. Perform required maintenance on launch and recovery equipment and the power plant, and on the fuel system, flight control system, electrical system, and arresting gear and landing system.
3. Apply the skills required to maintain, troubleshoot, and repair launch and recovery equipment, and support equipment.
4. Apply the skills required to maintain, troubleshoot, and repair the ground control station and the ground data terminal, as well as aircraft avionics and mission payloads.
5. Demonstrate the skills required in the emplacement and displacement of Shadow Unmanned Aircraft Systems (UAS).

Course or program prerequisite(s) not included in the degree:

Military credit toward this degree may be based on skill level, training, and/or coursework from military schools attended.
This program is restricted to Department of Defense personnel and contractors with sufficient, verifiable training. See an academic advisor for details.
ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 123 Developmental Mathematics Level III requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
See note below.			
Second Semester (Spring):			
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 64

Notes:

The Unmanned Aircraft Systems Technician Associate of Applied Science degree is run through the MOS credentialing program on Fort Huachuca and does not follow standard semester scheduling.

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Utility Industry-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the skills required to work for a utility company, including mathematics, communication, safety, computer technology, print reading, and estimating.
2. Demonstrate an understanding of the vast workings of various utility industry companies.
3. Perform the work required of an entry-level position in a utility industry company.
4. Demonstrate the ability to understand and incorporate sustainable (green) practices in the utility field.

Course or program prerequisite(s) not included in the degree:

BCT 224 Field Experience in Building Construction Technology: Prior approval of the cooperative education coordinator.
BUS 167 Business Communications: Appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	BCT 100 Technical Mathematics I	F2F	3
Core Curriculum	CIS 116 Computer Essentials	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	BCT 108 Basics in Construction	F2F	2
Core Curriculum	BCT 109 Construction Safety	F2F	3
Core Curriculum	BCT 112 Introduction to the Utility Industry	F2F	3
Core Curriculum	BCT 127 Blueprint Reading and Estimating	F2F	3
Core Curriculum	BUS 167 Business Communications	ITV,VC	3
Core Curriculum (summer I)	BCT 224 Field Exper in Building Construction Tech	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 23

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Web Developer-Certificate

Location(s) Offered:

Sierra Vista Campus (CIS 129 is offered only through the Virtual Campus.)

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Develop static and interactive web pages.
2. Organize efficient websites.
3. Manage information on web pages.
4. Develop scripts for interactive connections to databases.
5. Design visually appealing pages.
6. Demonstrate an understanding of proper web development standards and technologies.

Course or program prerequisite(s) not included in the degree:

CIS 179 Applied Technical Writing requires appropriate English placement score (or see advisor), and RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	CIS 116 Computer Essentials	F2F,VC	3
Core Curriculum	CIS 120 Introduction to Information Systems	F2F,VC	3
Core Curriculum	CIS 129 Introduction to Programming Logic	VC	1
Core Curriculum	CIS 185 Internet Essentials	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	CIS 128 Linux Operating Systems	F2F,VC	4
Core Curriculum	CIS 244 World Wide Web Graphics	F2F	3
Core Curriculum	CIS 287 World Wide Web Development	F2F	3
Third Semester (Fall):			
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	CIS 242 World Wide Web Programming	F2F	3
Fourth Semester (Spring):			

Total credits required: 26

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Welding Technology-Associate of Applied Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate appropriate safe work habits when operating oxyfuel and electric arc welding equipment.
2. Use proper terminology associated with welding to communicate effectively with co-workers, supervisors, customers, inspectors, engineers, and vendors.
3. Successfully perform welding operations using appropriate processes on various metals and in various situations.

Course or program prerequisite(s) not included in the degree:

ENG 101 Composition requires appropriate English placement score (or see advisor).
MAT 132 Applied Mathematics requires appropriate mathematics placement score (or see advisor).
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	WLD 105 Oxyacetylene Welding	F2F	3
Core Curriculum	WLD 106 Arc Welding	F2F	3
Core Curriculum	WLD 128 Gas Metal Arc Welding	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Technology Literacy	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Second Semester (Spring):			
Core Curriculum	GTC 105 Manufacturing Materials and Processes	F2F	3
Core Curriculum	WLD 209 Gas Tungsten Arc Welding	F2F	3
Core Curriculum	WLD 210 Advanced Shield Metal Arc Welding	F2F	3
Core Curriculum	WLD 228 Advanced Gas Metal Arc Welding	F2F	3
General Education-Composition	ENG 102 English Composition	F2F,VC	3
General Education-Mathematics	MAT 132 Applied Mathematics	F2F	3
Third Semester (Fall):			
Core Curriculum	DFT 150 Fundamentals of AutoCAD	F2F	3
Core Curriculum	WLD 202 Welding Survey	F2F	4
Core Curriculum	WLD 211 Pipe Fitting and Welding	F2F	3
Core Curriculum	WLD 212 Advanced Shield Metal Arc Welding II	F2F	3
General Education-Liberal Arts		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	WLD 203 Blueprint Interpretation	F2F	3
Core Curriculum	WLD 215 Welding Design and Fabrication	F2F	3
Core Curriculum	WLD 217 Pipe Layout and Fitting	F2F	3
Core Curriculum	WLD 229 Flux-Cored Arc Welding	F2F	3
General Education-Liberal Arts		F2F,VC	3

Total credits required: 64

Notes:

COCHISE COLLEGE

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Welding Technology-Certificate

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate appropriate safe work habits when operating oxyfuel and electric arc welding equipment.
2. Use proper terminology associated with welding to communicate effectively with co-workers, supervisors, customers, inspectors, engineers, and vendors.
3. Successfully perform basic welding operations using appropriate processes on various metals and in various situations with an emphasis on the shielded metal arc welding (SMAW) process.
4. Demonstrate the ability to interpret blueprints and welding symbols in order to fabricate components.

Course or program prerequisite(s) not included in the degree:

CIS 179 Applied Technical Writing requires appropriate English placement score (or see advisor), RDG 122 Reading Critically or exemption, and CIS 116 Computer Essentials or CIS 120 Introduction to Information Systems.
MAT 132 Applied Mathematics requires appropriate mathematics placement score (or see advisor).

Program Reviewed: ***Mar 20, 2015***

Key:
IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
Core Curriculum	DFT 150 Fundamentals of AutoCAD	F2F	3
Core Curriculum	MAT 132 Applied Mathematics	F2F	3
Core Curriculum	WLD 105 Oxyacetylene Welding	F2F	3
Core Curriculum	WLD 106 Arc Welding	F2F	3
Core Curriculum	WLD 128 Gas Metal Arc Welding	F2F	3
Second Semester (Spring):			
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	GTC 105 Manufacturing Materials and Processes	F2F	3
Core Curriculum	WLD 203 Blueprint Interpretation	F2F	3
Core Curriculum	WLD 209 Gas Tungsten Arc Welding	F2F	3
Core Curriculum	WLD 210 Advanced Shield Metal Arc Welding	F2F	3
Third Semester (Fall):			
Fourth Semester (Spring):			

Total credits required: 30

Notes: