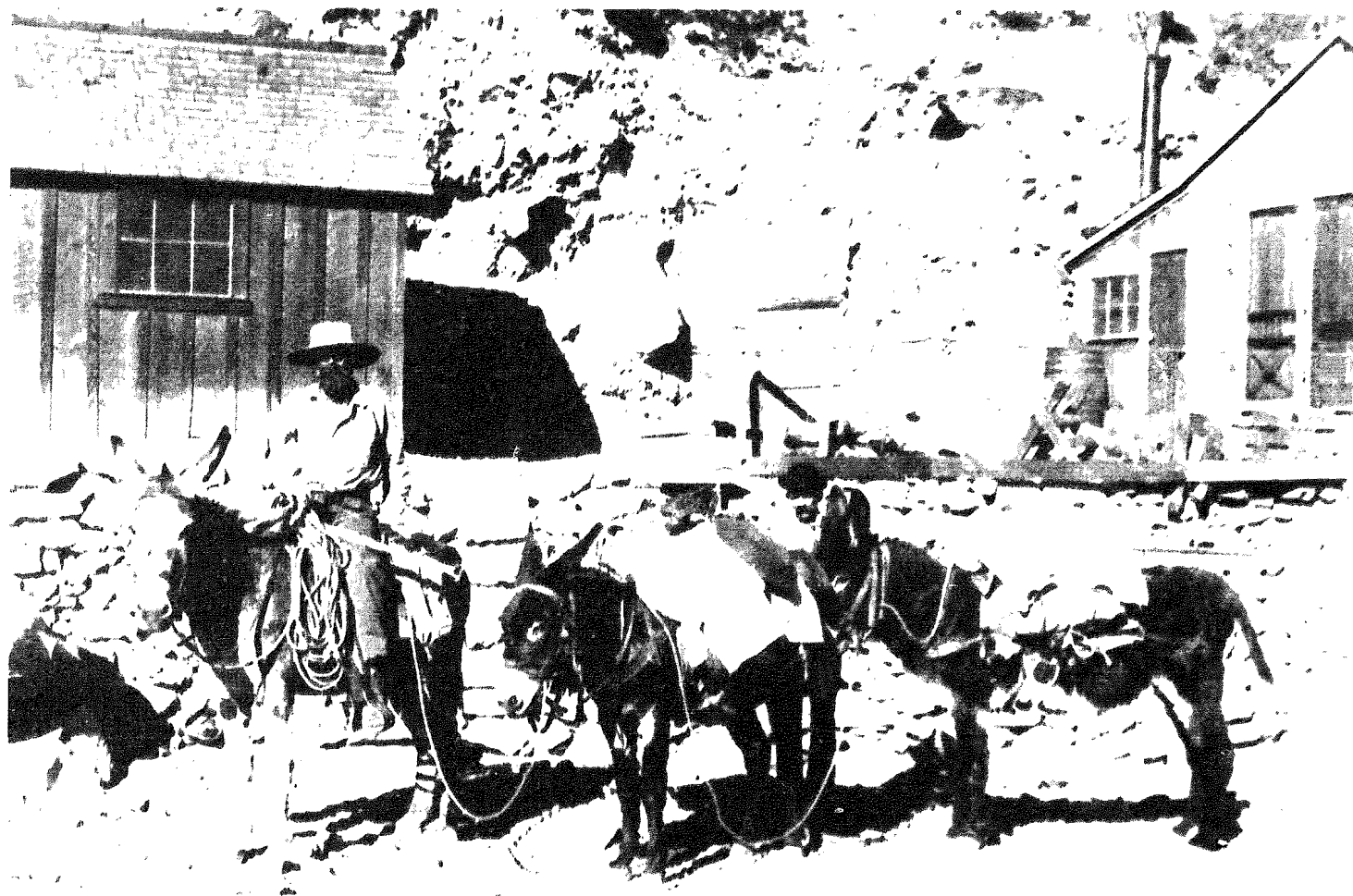


# COCHISE COLLEGE



1998-1999

*Catalog Addendum*

Since the publication of the 1997-1999 Cochise College Catalog the Governing Board has made two changes in policies and procedures that directly affect students. These changes are to the grading system and the definition of non-satisfactory progress. The revised policies are included in this addendum and apply to students who initially enroll after July 1, 1998. This 1998-1999 Catalog Addendum also includes new programs, certificates, and courses approved by the Cochise College Governing Board since the publication of the 1997-1999 Catalog.

## **POLICY AND PROCEDURAL CHANGES TO THE 1997-99 COCHISE COLLEGE CATALOG**

### **GRADING SYSTEM (PAGE 35)**

Grades are earned in each course and recorded on the student's permanent record. Grade definitions are as follows:

- A Superior (4.0)
- B Good (3.0)
- C Average (2.0)
- D Poor (1.0)
- F Failure

**Withdraw Failing (WF)** - Indicates withdrawal from the class after Friday of the ninth week with a grade below a "C" in the course. A Grade of WF is computed in the student's grade point average as an F, or failure.

**Withdraw (W)** - Indicates a student has withdrawn from the course through Friday of the ninth week, or that he/she was earning a grade of "C" or better if the withdrawal was after the Friday defined above. A grade of W is not computed in the student's grade point average.

**Incomplete (I)** - Indicates that for a justifiable reason, such as a serious illness, the student failed to complete all requirements for the course. When this happens, the instructor submits an Incomplete Grade Contract to the Registration Office with the final grade roster. Failure to make up an incomplete during the succeeding semester will result in change from the grade of I to an F on the permanent record unless there is a contract on file in the Director of Admissions and Records Office stating otherwise. The grade of I is not computed in the student's grade

**Audit (AU)** - Registration and fee policies for students who audit a course are the same as those for students who register for college credit. However, the instructor will give priority to students registering in the course for credit. Students who audit classes will not receive grades or credit. The instructor will not require audit students to take examinations or hand in assignments.

A student registering as an auditor may not change to a credit basis later than Friday of the second week of the semester. A student registering for credit may change to audit up through the Friday of the ninth week of the semester. The drop/add procedure is used to effect such changes.

**In Progress Grade (IP)** - Indicates that the course has not been completed at the time the grade rosters were issued. The final grade will be placed on the transcript in a timely fashion after the completion of the course.

**Pass (P)** - Indicates that the student has done "C" or better work in a class taken for Pass-Fail.

**Fail (X)** - Indicates that the student has earned a "D" grade or failed in a class taken for Pass-Fail.

### **ACADEMIC PROBATION (PAGE 37) IS NOW NON-SATISFACTORY PROGRESS**

After 13 or more hours attempted, all students, full- and part-time, will be reviewed for academic progress. Once a full- or part-time student's cumulative grade point average drops below a 2.0, that student will be notified of non-satisfactory progress. After two consecutive terms of a cumulative grade point below 2.0, students may be placed on suspension. Students will be notified of their non-satisfactory progress and suspension reports will only be calculated in December and May at the end of the traditional fall and spring terms.

Students who are suspended will be required to sit out one regular semester (the next fall or spring, which includes summer and short sessions).

Academically suspended students who are re-admitted will be placed on non-satisfactory progress for the semester in which they are readmitted.

Students who make non-satisfactory progress or suspension will have that status noted on their transcripts.

## **NEW PROGRAMS & CERTIFICATES**

### **GENERAL BUSINESS**

#### **Certificate**

##### **Core Courses**

		<b>Units</b>
Business Math	BUS 104	3
Survey of American Business	BUS 109	3
Intro to Accounting	BUS 146	3
Business Communication	BUS 167	3
Intro to Personal Computers	CIS 116	
OR Intro to Data Processing	CIS 120	3
International Management	BUS 131	
OR Starting a Business	BUS 183	3
<b>TOTAL</b>		<b>18</b>

### **INTERNATIONAL MANAGEMENT**

#### **Certificate**

##### **Core Courses**

		<b>Units</b>
General Business Certificate		
Business Math	BUS 104	3
Survey of American Business	BUS 109	3
Intro to Accounting	BUS 146	3
Business Communication	BUS 167	3
Intro to Personal Computer	CIS 116	
OR Intro to Data Processing	CIS 120	3
International Management	BUS 131	
OR Starting a Business	BUS 183	3
<b>General Business Certificate Subtotal</b>		<b>18</b>

All coursework towards the General Business Certificate MUST be completed in addition to the courses listed below.

International Marketing	BUS 134	3
Financial Accounting	BUS 201	3
Principles of Macroeconomics	ECN 201	3
International Trade	ECN 221	3
<b>TOTAL</b>		<b>30</b>

### **ENTREPRENEURSHIP/SMALL BUSINESS MANAGEMENT**

#### **Certificate**

##### **Core Courses**

##### **General Business Certificate**

		<b>Units</b>
Business Math	BUS 104	3
Survey of American Business	BUS 109	3
Intro to Accounting	BUS 146	3
Business Communication	BUS 167	3
Intro to Data Processing	CIS 120	
OR Intro to Personal Computers	CIS 116	3
International Management	BUS 131	
OR Starting a Business	BUS 183	3
<b>General Business Certificate Subtotal</b>		<b>18</b>

All coursework towards the General Business Certificate MUST be completed in addition to the courses listed below.

Financial Accounting	BUS 201	3
Principles of Macroeconomics	ECN 201	3
Legal Environment of Business	BUS 233	3
Small Business Management	BUS 283	3
<b>TOTAL</b>		<b>30</b>

### **ON-LINE INTERNATIONAL BUSINESS**

#### **Certificate**

##### **Core Courses**

		<b>Units</b>
Survey of International Business	BUS 110	3
Financial Accounting	BUS 201	3
International Management	BUS 131	3
International Marketing	BUS 134	3
Principles of Macroeconomics	ECN 201	3
International Trade	ECN 221	3
WWW Development	CIS 287	3
<b>TOTAL</b>		<b>21</b>

**CULINARY ARTS**  
**Associate of Applied Science**

General Education Requirements		Units
Learning to Use the Microcomputer	CIS 116	3
English Composition	ENG 101	3
English Composition	ENG 102	3
Business Math	BUS 104	3
Social or Behavioral Sciences		6
<b>Total General Education Units</b>		<b>18</b>

Core Courses		
Food Service Specialty: Culinary Preparation	HAD 215	3
Food Service Specialty: Baking	HAD 220	3
Food Service Specialty: Garde-Manger	HAD 225	3
Restaurant Sanitation	HAD 207	3
Food Purchasing and Control	HAD 204	3
Dining Service Management	HAD 242	3
Meat Cutting for the Food Service Industry	HAD 208	2
Nutrition in Food Service	HAD 205	3
Food Service Math Principles	HAD 110	3
Food Service Specialty: Culinary Preparation II	HAD 216	2
Food Service Specialty: Baking II	HAD 221	2
Food Service Specialty: Garde-Manger II	HAD 226	2
Department Approved Electives		14
Total Core Course Requirements		46
<b>TOTAL</b>		<b>64</b>

**CHEF GARDE-MANGER**  
**Cold Foods & Salad Certificate**

Core Courses		Units
Food Service Math Principles	HAD 110	3
Restaurant Sanitation	HAD 207	3
Food Purchasing and Control	HAD 204	3
Garde-Manger Specialty		
Food Service Specialty: Garde-Manger	HAD 225	3
Food Service Specialty: Garde-Manger II	HAD 226	2
<b>TOTAL</b>		<b>14</b>

**CHEF PATISSIER-BAKERS**  
**Certificate**

Core Courses		Units
Food Service Math Principles	HAD 110	3
Restaurant Sanitation	HAD 207	3
Food Purchasing and Control	HAD 204	3
Baking Specialty		
Food Service Specialty: Baking	HAD 220	3
Food Service Specialty: Baking II	HAD 221	2
<b>TOTAL</b>		<b>14</b>

**CHEF DE CUI'CINE -**  
**FOOD PREPARATION**  
**Certificate**

Core Courses		Units
Food Service Math Principles	HAD 110	3
Restaurant Sanitation	HAD 207	3
Food Purchasing and Control	HAD 204	3
Food Preparation Specialty		
Food Service Specialty: Culinary Preparation	HAD 215	3
Food Service Specialty: Culinary Preparation II	HAD 216	2
<b>TOTAL</b>		<b>14</b>

**SOUS CHEF**  
**Certificate**

Core Courses		Units
Food Service Math Principles	HAD 110	3
Restaurant Sanitation	HAD 207	3
Food Purchasing and Control	HAD 204	3
Food Preparation Specialty		
Food Service Specialty: Culinary Preparation	HAD 215	3
Food Service Specialty: Culinary Preparation II	HAD 216	2
Baking Specialty		
Food Service Specialty: Baking	HAD 220	3
Food Service Specialty: Baking II	HAD 221	2
Garde-Manger Specialty		
Food Service Specialty: Garde-Manger	HAD 225	3
Food Service Specialty: Garde-Manger II	HAD 226	2
Advanced Techniques of Gourment Food Preparation	HAD 280	3
Meat Cutting in Food Service	HAD 208	2
Dining Service Management	HAD 242	3
Food Service Management	HAD 240	3
<b>TOTAL</b>		<b>35</b>

## CUSTODIAL SERVICES

### Certificate

Core Courses		Units
Introduction to Custodial Maintenance	CMS 101	3
Custodial Chemicals, Usage and Safety	CMS 110	3
Floors and Floor-care Equipment	CMS 120	3
Maintaining Walls, Windows, and Other Surfaces	CMS 130	3
Cleaning Carpet and Fabric	CMS 140	3
Rest Room Cleaning	CMS 150	3
<b>TOTAL</b>		<b>18</b>

Note: The Custodial Maintenance Service Certificate is designed for the Department of Corrections, Douglas, Arizona

## PARAMEDICINE

### Associate of Applied Science

General Education Requirements		Units
English Composition	ENG 101	3
English Composition	ENG 102	3
Introduction to Psychology	PSY 101	3
Introduction to Sociology	SOC 101	3
Human Anatomy & Physiology	BIO 201	4
Human Anatomy & Physiology	BIO 202	4
Microbiology	BIO 205	4
Chemistry	CHM 130/151	4
Elective		3
<b>Total General Education Requirements:</b>		<b>31</b>

### Core Courses

Emergency Medical Technician	EMT 174	8 hours
NOTE: (Each applicant must be certified in Arizona as an EMT-Basic or EMT-Intermediate prior to applying, and must be employed by, or served as a volunteer with, an agency providing patient care for emergency medical patients for a minimum of one year prior to starting the program. Applicants must be at least 18 years of age prior to applying and be able to demonstrate the ability to read at a minimum of the 9th grade level. In addition, applicants must provide proof of a negative TB test or x-ray taken within 6 months of the class start date, and must show proof of immunity against Rubella and Rubeola.)		
Paramedicine I	EMT 201	12
Paramedicine II	EMT 202	14
Paramedicine III	EMT 203	2
<b>Total Core Course Requirements</b>		<b>36</b>
<b>TOTAL</b>		<b>67</b>

## TEACHER AIDE CERTIFICATES

### TEACHER AIDE I CERTIFICATE

Core Courses		Units
English Composition	ENG 101	3
Any other English writing class at the 100 or 200 level		3
Mathematics -(Any 100 level or above mathematics course)		3
Computer Literacy	CIS 116 or above	3
Sociology	SOC 101	3
Psychology	PSY 101	3
Spanish Literacy*		4
*(Any 4 unit Spanish course at the 100 or 200 level)		4
Internship	EDU 224	1-4
<b>TOTAL</b>		<b>23-26</b>

### TEACHER AIDE II CERTIFICATE

Prerequisite: Successful completion of Teacher Aide I Certificate

Core Courses		Units
Psychology	PSY 240	3
Sociology	SOC 160	3
Spanish Literacy*		4
*(Any 4 unit Spanish course at the 100 or 200 level not used in Teacher Aide I)		
Speech	OAD 268, CPM 102 or COM 110	3
Elective Area		
Health and Physical Education		
Select two courses from the following:		5-6
HPE 186, 189, 180, 190, 185, 192, 193, 194, 195, 197		
OR		
ART		
Select two courses from the following:		
ART 120, and one of the following:		
ART 103, ART 106, ART 107, ART 108		6
*For additional foreign language literacy options of 3-4 units-see an advisor		
OR		
Social Services		
Select two courses from the following:		
History, Anthropology, Sociology, Psychology, AJS 101, 130, Counseling, POS 220, Social Services		6
OR		
Physical and Biological Sciences		8
Select two courses from the following:		
Biology, Astronomy, chemistry, Physics, Geology		
Internship	EDU 224	1-4
<b>TOTAL</b>		<b>19-25</b>

## UNIX SYSTEM ADMINISTRATOR

### Certificate

The certificate course of study is designed to provide the student with basic UNIX Operating System skills as they apply to users, shell programming and system administration. The UNIX Operations and Field Experience courses give the student opportunities to apply these skills to operational UNIX Operating Systems at the college or in the workplace.

#### Core Courses

		Units
Unix Operating System	CIS 228	4
UNIX System Administration	CIS 229	4
C Programming	CIS 204	
OR UNIX Shell Programming	CIS 215	
OR 4 Credits Technology approved electives		4
<b>TOTAL</b>		<b>12</b>

## NEW COURSES

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### AGR 225 INTRODUCTION TO AGRI-BUSINESS (3)

Prerequisites: 11.0 reading level; ENG 100 or above.

This course will familiarize students with the basic concepts of agri-business from a functional and commodity approach.

3 hours lecture.

### BUS 110 SURVEY OF INTERNATIONAL BUSINESS (3)

Prerequisite: None.

A study of international business in a socio-political and multicultural context. This course focuses on the cultural, economic and political aspects of foreign environments and their effect on the operation of an international firm.

3 hours lecture.

### BUS 131 INTERNATIONAL MANAGEMENT (3)

Prerequisite: None.

An overview of managerial issues confronting managers doing business in the international sector, focusing on the design of the organization, political, legal, cultural and economic concerns, personnel issues and negotiating strategies.

3 hours lecture.

### BUS 134 INTERNATIONAL MARKETING (3)

Prerequisite: None.

An overview of the marketing principles involved in international business. This class will consider globalization, trade issues, and the application of the 4 ps of marketing to the international business environment.

3 hours lecture.

### BUS 172 QUANTITATIVE METHODS IN BUSINESS (3)

Prerequisite: MAT 111 or permission of instructor.

This course concentrates on business applications of quantitative optimization methods in operation management decisions. Quantitative methods and modeling to support business decision-making will be the focus.

3 hours lecture.

### BUS 230 MONEY AND BANKING (3)

Prerequisite: ECN 201, or permission of the instructor.

The practical aspects of money and banking and monetary theory needed by the banking student. The students will be introduced to major private and public institutions in the field of money and banking, the major three traditional divisions of finance (corporate finance, investments, capital markets), the role of Federal Reserve, and the growth of monetary aggregates and its impact on the economy.

3 hours lecture.

### CIS 105 INTRODUCTION TO INFORMATION SECURITY (1)

Prerequisite: None.

Provides a concentrated examination of Information Security. Examines security models, auditing and intrusion detection, damage control and network security. Emphasis is on the impact of Information Security on an organization and its management.

1 hour lecture.

## **CIS 160 INTRODUCTION TO INFORMATION SECURITY (3)**

Prerequisite: None.

Provides a concentrated examination of information Security as it applies to Computer Information Systems and Networks. Examines security models, auditing, intrusion detection, damage control, and network issues. Emphasis is on the impact of information security on an organization and its management.

3 hours lecture.

## **CIS D192 BEGINNING EXCEL FOR WINDOWS (.5)**

An introduction to spreadsheets using Excel for Windows software. Topics include creating the worksheet; editing the spreadsheet; using ranges and formulas; formatting the worksheet; and using functions.

## **CIS E192 INTERMEDIATE EXCEL FOR WINDOWS (.5)**

A continuation of CIS 192A. Topics include: creating and editing charts and graphs; printing the spreadsheets (all or part of); and linking of spreadsheets.

## **CIS F192 BEGINNING ACCESS FOR WINDOWS (.5)**

An introduction to databases using ACCESS for Windows. Topics include: creating, modifying table design; finding, inserting, and deleting; copying records and values; selecting fields; sorting records; and creating simple queries and forms.

## **CIS G192 INTERMEDIATE ACCESS FOR WINDOWS (.5)**

A continuation of CIS 192C. Topics include: creating simple reports; converting existing database files to ACCESS; using calculations in queries; creating calculated fields; and various controls to enhance forms and reports.

## **CIS H192 ADVANCED TOPICS IN ACCESS FOR WINDOWS (.5)**

A continuation of CIS 192D. Topics include: embedding objects in forms and reports; working with subforms and subreports; sharing data; designing an application; and creating advanced elements and objects.

## **CIS I192 ADVANCED TOPICS IN ACCESS FOR WINDOWS (.5)**

A continuation of CIS 192E. Topics include: using macros and ACCESS basic; creating switchboards; establishing security; running, testing and debugging applications; repairing and maintaining databases.

## **CIS J192 BEGINNING WORD FOR WINDOWS (.5)**

An introduction to word processing. Topics include: setting tabs/margins; bolding, underlining, centering; document converting; saving in other formats; using headers/footers; indenting; using special characters; proofreading tools; getting help; and printing documents.

## **CIS K192 INTERMEDIATE WORD FOR WINDOWS (.5)**

A continuation of CIS 192G. Topics include: tables; formulas; macros; mailmerge, sorting multilevel lists; envelopes/labels; tools and options, spreadsheet import/linking; graphics; styles and wizards

## **CIS L192 BEGINNING GRAPHICS FOR WINDOWS (.5)**

An introduction to graphics. Topics include: planning, developing and preparing graphic presentations; slides, slide master, fonts, text and text placement, graphics; transitions and templates; and importing text and graphics from other applications.

## **CIS M192 INTERMEDIATE GRAPHICS FOR WINDOWS (.5)**

A continuation of CIS 192I Beginning Graphics for Windows. Topics include: charting and graphing; advanced text and graphic import; linking to other Windows documents; using DDE and OLE; creating masters and templates, using graphic objects, and an introduction to multimedia presentations.

## **CIS N192 WORD '97 AND THE WEB (.5)**

This course provides students with tools for development of web pages. Topics include: HTML tools such as web toolbar, auto hyperlinks and web page wizard

### **CIS O192 OUTLOOK FOR WINDOWS (5)**

This software provides desktop tools for the office. Topics include: outlook bar, inbox tools; message recall; message flag; autopreview; contacts feature; task list calendar, and journal.

### **CIS P192 PUBLISHER '97 FOR WINDOWS (.5)**

This desktop software includes topics such as: designing newsletters, flyers, brochures, postcards, web sites, business cards, and letterheads; page wizard design templates; web site wizard; design gallery; design assistants, and clip gallery.

### **CIS Q192 USING THE INTERNET, PART 1 (.5)**

An introduction to the Internet. Topics include: history of the Internet; how the Internet works; Internet ethics and netiquette; using Netscape; search engines; using a remote computer with Internet; retrieving files using FTP, and using Eudora email.

### **CIS 192Q MICROCOMPUTER ORIENTATION (.5)**

A condensed version of CIS 116. Includes basic hardware and software information; use of the keyboard and the mouse; introduction to the Windows operating system, and word processing, spreadsheet, graphics softwares.

### **CIS R192 USING THE INTERNET, PART 2 (.5)**

A continuation of CIS Q192. Topics include: Netscape browser; maximizing new search engines; use of FTP to acquire files, graphics and information; use of JPEG, motion pictures and sound files.

### **CIS S192 BUILDING A HOME PAGE ON THE INTERNET (.5)**

A continuation of CIS192P. Students will design home pages on the Internet using hyper text markup language (HTML); adding, altering and enhancing home pages with color counters and graphics; adding hyperlinks to other locations; effective use of color and graphics.

### **CIS T192 DOING BUSINESS ON THE INTERNET (.5)**

A class designed for small business owners. Topics include: how to use the Internet to expand customer contacts, market products and services, and enhance customer service; how the Internet can assist in business planning and decision-making; how to send and receive email, learn new marketing strategies, and research, government and financial information needed to start a business.

### **CIS U192 INTRODUCTION TO QUICKBOOKS FOR WINDOWS, PART 1 (.5)**

An accounting software class designed for small business owners. Topics include: installation of the software; setting up the business books; managing inventories and creating invoices; receiving payments (deposits); writing checks; and tracking customers, clients or jobs.

### **CIS V192 INTERMEDIATE QUICKBOOKS FOR WINDOWS, PART 2 (.5)**

A continuation of CIS 192T. Topics include: customizing software for individual businesses; customizing reports, time tracking and job costing; payroll reports; balance sheet reports, and year-end reports for tax returns.

### **CIS 192Z BEGINNING MICROSOFT WINDOWS (.5)**

An introduction to the current Windows operating environment. Topics include: program and desktop management; pull-down and main menus; changing windows arrangements; using Help; use of the Explorer to manipulate files; use of Windows applications and settings; copying and moving information; deleting information, and use of the taskbar.

### **CIS 242 WWW PROGRAMMING (3)**

Prerequisite: CIS 287. Recommended: CIS 130.

Introduction to World Wide Web Programming using JavaScript. Emphasis is on the use of existing scripts to create dynamic web pages. Limited script development is introduced.

3 hours lecture, 1 hour laboratory

### **CIS 257 UNIX SHELL PROGRAMMING (4)**

Prerequisite: CIS 228 or permission of instructor.

A beginning course in UNIX Shell Programming. Topics will include the find, awk, grep, and sed utilities, regular expressions, Bourne, C and Korn shell programming languages.

3 hours lecture; 3 hours laboratory.

### **CIS 288 DEVELOPING ONLINE COURSES (3)**

Prerequisite: CIS 185 or Internet experience and permission of instructor.

This course provides practical experience in converting existing courses and course materials from traditional modes to an online format. Students are expected to have an existing course to us as a project. A variety of online techniques will be addressed including World Wide Web development, use of e-mail and lists, and applicability of chat facilities. Students will prepare all materials for a course as a project.

3 hours lecture.

The following Custodial Maintenance Service (CMS) courses are designed for the Department of Corrections, Douglas, Arizona.

### **CMS 101 INTRODUCTION TO CUSTODIAL MAINTENANCE (3)**

Prerequisite: None.

History and importance of custodial services; the basic mathematics necessary in the industry; trends in the industry; current custodial opportunities locally, regionally, and nationally; and job-seeking skills to enhance employability.

3 hours lecture; 1 hour laboratory.

### **CMS 110 CUSTODIAL CHEMICAL, USAGE AND SAFETY (3)**

Prerequisite: CMS 101 or permission of instructor.

Hands-on practical introduction to the types of cleaning chemicals, their proper use, and safety, including the OSHA Hazard Communication standard. Covers the basic chemistry of cleaning chemicals, then explains the correct use of detergents, soaps, solvents, disinfectants, and other cleaning chemicals. Explains how chemicals are packaged, labeled, mixed and applied in order to make working with chemicals safer.

2 hours lecture; 3 hours laboratory.

### **CMS 120 FLOORS AND FLOOR-CARE EQUIPMENT (3)**

Prerequisite: CMS 101 or permission of instructor.

A practical analysis of the methods, skills, chemicals, equipment, and tools used in the maintenance and care of resilient, natural hard, synthetic hard, wood, and special flooring.

1 hour lecture; 4 hours laboratory

### **CMS 130 CLEANING HARD SURFACES AND WINDOWS (3)**

Prerequisite: CMS 101 or permission of instructor.

A practical analysis of the methods, skills, chemicals, and tools used to clean and maintain wood, metal, painted surfaces, and fiberglass surfaces.

1 hour lecture; 4 hours laboratory.

### **CMS 140 CLEANING CARPET AND FABRIC (3)**

Prerequisite: CMS 101 or permission of instructor.

A practical analysis of the methods and skills for the cleaning of carpet, upholstered furniture, draperies, and fabric wall coverings.

1 hour lecture; 5 hours laboratory.

### **CMS 150 REST ROOM CLEANING (3)**

Prerequisite: CMS 101 or permission of instructor

A practical analysis of the elements of routine rest room cleaning. Covers the specifics of cleaning rest room plumbing fixtures; describes the periodic tasks required to keep rest rooms in good condition; and stresses the importance of disinfecting rest rooms and how to perform this task safely.

1 hour lecture; 5 hours laboratory.

### **CPD 118 EMPLOYMENT WORKSHOP (4)**

Prerequisite: None.

A practical introduction to and analysis of the means to achieve self-sufficiency by obtaining employment. Emphasizes the identification of employment opportunities; the ability to identify and explore career opportunities; and the development of effective job search, communication, interviewing and stress management techniques. Offered on a pass/fail basis.

Contact hours 70 hours lecture.

## **ECN 221 INTERNATIONAL TRADE (3)**

Prerequisite: None.

The purpose of this course is to survey the basics of international trade and finance and to examine the effects of various international economics policies on domestic and world welfare.

3 hours lecture.

## **EDU 020 FUNDAMENTAL ACADEMIC SKILLS TRAINING (FAST) (3)**

Prerequisite: Placement by Army Education Center Counselor.

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 072 OR higher.

3 hours lecture.

## **EDU 021 PREPARING FOR ARMED FORCES VOCATIONAL APTITUDE BATTERY (ASVAB) TEST TAKING (1)**

Prerequisite: Placement by Army Education Center Counselor.

Course is designed to improve basic test taking skills for the Armed Forces Vocational Aptitude Battery (ASVAB) with emphasis on arithmetic reasoning, word knowledge and reading comprehension.

1 hour lecture.

## **EMT 201 \*PARAMEDICINE I (12)**

Prerequisites: (Each applicant must be certified in Arizona as an EMT-Basic or EMT-Intermediate prior to applying, and must be employed by, or served as a volunteer with, an agency providing patient care for emergency medical patients for a minimum of one year prior to starting the program. Applicants must be at least 18 years of age prior to applying and be able to demonstrate the ability to read at a minimum of the 9th grade level. In addition, applicants must provide proof of a negative TB test or x-ray taken within 6 months of the class start date, and must show proof of immunity against Rubella and Rubeola.)

Selection Process: Individuals who wish to enter the Paramedicine Core classes must undergo written and practical examination as well as an interview process. State guidelines are followed in these processes. See Program Description for detail regarding selection process.

Paramedicine I is the first in a series of three courses which

prepare the student to perform vocational work as a paramedic. This course provides the initial education required to achieve student readiness to sit for the State Certification Exam in paramedicine as well as the National Registry Exam. Topics include illness, injury and treatment of the respiratory and cardiovascular systems. Ethical and legal considerations of practice rediscussed as well as the roles and responsibilities of the EMT-Paramedic.

10 hours didactic; 6 hours skills lab and clinical rotation.

## **EMT 202 \*PARAMEDICINE II (14)**

Prerequisites: EMT 201

This course provides the second sequential step in achievement of student readiness to sit for the State Certification Exam in Paramedicine as well as the National Registry Exam. Emergency Medical techniques are presented and include illnesses and injuries and treatments of the central nervous system, endocrine system, and cardiovascular system. In addition, response to emergent situations regarding the expectant mother, the elderly, the substance abuser, and pediatric patient are covered. Response to accidents resulting in trauma is taught.

10 hours didactic, 12 hours skills lab and clinical.

## **EMT 203 \*PARAMEDICINE III (2)**

Prerequisites: EMT 202.

This course provides the final clinical hours required to meet state requirements to sit for the State Certification Exam in Paramedicine as well as the National Registry Exam. The student will complete hours in rotations required by state mandate. These can be in vehicular rotations, emergency room rotations, pediatric trauma experiences in state metropolitan areas, etc.

2 hours.

\*Current Arizona Department of Health Services require that an individual must practice as an EMT for one year prior to entry into the upper level EMT-Paramedicine Courses

## **ENG 011 BASIC GRAMMAR (1)**

Prerequisite: None.

An introduction to English grammar terminology. This course will prepare students who plan to study a foreign language by introducing them to general grammatical terms and usage. In addition, this course will review basic terms for English speaking students to facilitate improved sentence structure and punctuation. This course is not designed for ESL students who do not already have a strong command of English.

### **ENG 231 NATIVE AMERICAN LITERATURE (3)**

Prerequisite: ENG 102 with a grade of C or better, or instructor permission.

Recommended: Reading grade level of 11.5.

Introduction to Native American literature, including oral traditions and stories, autobiographies, fiction, and poetry, with emphasis on the cultural and historical influences on Native themes and representatives.

3 hours lecture.

### **ENG 255 INTRODUCTION TO THE ENGLISH LANGUAGE (3)**

Prerequisites: Successful completion, with a grade of C or higher, of two of the following three courses: English 101, 102, and 111. Reading grade level of 11.5 on a standardized test.

An introduction to the basic concepts in the study of the English language: structure, interpretation, variation and changes. Study of linguistics with emphasis on language acquisition. Application of basic concepts to the teaching of English.

3 hours lecture.

### **ESL 016 ORAL COMMUNICATION I (3)**

Prerequisite: Recommendation from ESL oral placement testing.

An introduction to oral communication skills in English for students whose native language is not English, including survival vocabulary, fundamentals of English pronunciation, basic speaking and listening skills at the first-semester level.

3 hours lecture; 2 hours lab.

### **ESL 020 SPEAKING AND UNDERSTANDING ENGLISH II (3)**

Prerequisite: ESL 010 or recommendation from placement testing.

Designed for students whose native language is not English, this course encompasses a study of English structure as needed for general proficiency at the novice high level. This course also includes study of vocabulary and listening comprehension with limited writing and controlled communication practice.

3 hours lecture; 2 hours laboratory.

### **ESL 026 ORAL COMMUNICATION II (3)**

Prerequisite: Recommendation from ESL oral placement testing.

A continuation of English oral communication skills for students whose native language is not English, this course addresses the development of skills in listening and speaking (combining knowledge of vocabulary, pronunciation, and comprehension) at the second-semester level.

3 hours lecture; 2 hours laboratory.

### **ESL 036 ORAL COMMUNICATION III (3)**

Prerequisite: Recommendation from ESL oral placement testing or final oral assessment from previous semester.

A continuation of English oral communication skills for students whose native language is not English, this course addresses the development of skills needed to handle general communicative tasks at the third-semester level. Some focus on academic skills such as listening to lectures, note taking, and discussion of concrete topics.

3 hours lecture; 2 hours laboratory.

### **ESL 046 ORAL COMMUNICATION IV (3)**

Prerequisite: Recommendation from ESL oral placement testing or final oral assessment from previous semester.

A continuation of English oral communication skills for students, whose native language is not English, this course addresses the development of skills needed to handle more complex communicative tasks at the fourth-semester level. Expanded work on academic skills such as listening to lectures, note taking, and group discussion.

3 hours lecture, 2 hours laboratory

### **ESL 056 ORAL COMMUNICATION V (3)**

Prerequisite: Recommendation from ESL oral placement testing or final oral assessment from previous semester

A continuation of English oral communications skills needed to handle complex communicative tasks at the fifth-semester level. Extensive work on accent reduction and oral communication strategies for social and business purposes.

3 hours lecture; 2 hours laboratory.

### **ESL 066 ADVANCED ORAL COMMUNICATIONS (3)**

Prerequisite: Recommendation from ESL oral placement testing or final oral assessment from previous semester.

Advanced oral communication skills for students whose native language is not English, this course addresses the development of skills needed to handle complex communicative tasks. Further work on accent reduction, oral communication strategies for a full range of social and business purposes, and extended oral discourse.

3 hours lecture; 2 hours laboratory.

### **ESL 106 ORAL COMMUNICATION I (3)**

Prerequisite: Recommendation from ESL oral placement testing.

An introduction to oral communication skills in English for Students whose native language is not English, including survival vocabulary, fundamentals of English Pronunciation, and basic speaking and listening skills at the first-semester level.

3 hours lecture; 2 hours laboratory.

### **HAD 110 FOOD SERVICE MATH PRINCIPLES (3)**

Prerequisite: None.

This course includes the advanced use of culinary weights and measures and conversions, principles of converting standard recipes, sales checks, using the cashier's worksheet, pricing menus, maintaining perpetual and physical inventories and budgeting.

3 hours lecture.

### **HAD 204 FOOD SERVICE PURCHASING AND CONTROL (3)**

Prerequisite: Recommended: HAD 110.

The course includes the principles of selecting sources as well as quality and type of foods, and determining quantities to purchase. Fundamentals of receiving operations, quality and volume assurance. Includes planning, control system design, cost analysis and control of sales income and labor costs.

3 hours lecture.

### **HAD 205 NUTRITION IN FOOD SERVICE (3)**

Prerequisite: None.

Principles of culinary nutrition. Includes scientific aspects, life-style impact on food consumption and production, and nutrition applications in food service.

3 hours lecture.

### **HAD 207 RESTAURANT SANITATION (3)**

Prerequisite: None.

This course is an examination of techniques for controlling sanitation in the foodservice operations including: ensuring product quality, and managing time and costs. Cochise County Food Handlers Certificate is the test given at midterm. Industry certification is available on request with payment for test administration.

3 hours lecture.

### **HAD 208 MEAT CUTTING FOR THE FOOD SERVICE INDUSTRY (2)**

Prerequisite: None.

This course encompasses the butchering of meat for quantity food preparation including history, purchasing guidelines, government regulations, cuts, and usage for pork, lamb/veal, and beef. This course does not include a laboratory.

2 hours lecture.

### **HAD 215 FOOD SERVICE SPECIALTY: CULINARY PREPARATION (3)**

Prerequisite: None.

This course includes the preparation of cuisine specialties, basic cooking principles, recipes, pre-preparation, stocks and sauces, vegetable cookery, starches, breakfast preparation, meat cookery, poultry, fish and shellfish, salads and salad dressings, sandwiches, presentation and garnishing, and bake shop production.

2 hours lecture; 2 hours laboratory.

### **HAD 216 FOOD SERVICE SPECIALTY: CULINARY PREPARATION II (2)**

Prerequisite: HAD 215; Recommended: HAD 207.

This course is a continuation of HAD 215. The course includes a review of the rules of good sanitation, modern kitchen equipment, cooking methods, art of seasoning, creating recipes, food cost, menu development, nutritional considerations, healthy alternatives, soups, family of sauces, meats, cooking methods, vegetable cookery, and potatoes and other starches.

1 hour lecture; 3 hours laboratory.

### **HAD 220 FOOD SERVICE SPECIALTY: BAKING (3)**

Prerequisite: Recommended: HAD 215.

This course includes the essentials of baking including basic principles, ingredients, quick breads, yeast dough, syrups, creams, icings, and sauces, pastries, pies, cake mixing and decorating, cookies, custards, puddings and mousses, and display pieces.

2 hours lecture; 2 hours laboratory.

### **HAD 221 FOOD SERVICE SPECIALTY: BAKING II (2)**

Prerequisite: HAD 220.

This course is a continuation of HAD 220. It includes advanced baking principles, baking process, muffins and biscuits, yeast dough, stages of cooking sugar, pastry cream, meringues, icings, pie dough, puff pastry, éclair paste, phyllo dough, pie production, cakes, cookies and their characteristics, and soufflés.

1 hour lecture; 3 hours laboratory.

### **HAD 225 FOOD SERVICE SPECIALTY: GARDE-MANGER (3)**

Prerequisite: Recommended: HAD 215.

This course encompasses the creation and storage of salads, sandwiches, and appetizers. Includes purchasing practices, food platter layout and presentation, cooking methods, salads and dressings, poultry, seafood, meats, show pieces, and canapés and hors d'œuvres.

2 hours lecture; 2 hours laboratory.

### **HAD 226 FOOD SERVICE SPECIALTY: GARDE-MANGER II (2)**

Prerequisite: HAD 225.

This course is a continuation of HAD 225. It includes review of the garde-manger department, aspic and chand-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.

1 hour lecture; 3 hours laboratory.

### **HAD 242 DINING SERVICE MANAGEMENT (3)**

Prerequisite: Recommended: HAD 240.

This course includes 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, basins of generic and varietal wines, wine and food affinities, bar service, sanitation and safety, and review/performance appraisals. The course does not include mixology or wine tasting.

2 hours lecture; 3 hours laboratory.

### **HAD 280 ADVANCED TECHNIQUES IN GOURMET FOOD PREPARATION (3)**

Prerequisite: Required: HAD 226; Recommended: HAD 110.

The course encompasses the preparation of haute cuisine, including proper flavorings, spirits, garnishes and flambé in gourmet food preparation.

2 hours lecture; 3 hours laboratory.

### **MUS 260 MUSIC FUNDAMENTALS THROUGH EXPERIENCE (3)**

Prerequisite: 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 with laboratory.

## **OAD 225 PARALEGAL THEORY AND ANALYSIS (3)**

Prerequisite: OAD 220, OAD 221, OAD 223 or proof of registrations for the CLA or PACE examinations. Student must demonstrate ability in performing word processing, business math, technical writing and college level reading.

A review of law office procedures, legal procedures, basic document preparation, ethics, the legal system and seminars, and mock testing in the following areas of law: general law, administrative law, bankruptcy, contract law, criminal law, business organizations, estate and probate, civil litigation and real estate law. The culmination of this class is a 6-hour certification examination for the Certificate of Paralegal Studies issued by Cochise College.

3 hours lecture.

## **OAD 226 FIELD EXPERIENCE IN MEDICAL TRANSCRIPTION (1-6)**

Prerequisite: OAD 212. Permission and approval of a Cooperative Education

Program Coordinator. Recommended: Sophomore standing.

A supervised Cooperative Education work experience involving the combined efforts of educators and employers to accomplish course objectives in medical transcription/terminology and medical records.

## **OAD 227 FIELD EXPERIENCE IN LEGAL PROCEDURES (1-6)**

Prerequisite: OAD 222 and approval of a Cooperative Education Program Coordinator.

A supervised Cooperative Education work experience involving the combined efforts of educators and employers to accomplish course objectives for law office procedures and document preparation.

## **PAD 192A FUNDAMENTALS OF SUPERVISION (.5)**

A practical introduction to the major concepts and skills needed by supervisors in today's diverse workforce. Topics covered are: the changing role of supervisors; managing your leadership style; techniques to plan, organize, prioritize and delegate work requirements; methodology of effective communications; ethical issues and quality management's impact on today's workforce.

.5 hours lecture.

## **PAD 193B PERSONNEL ASPECTS OF SUPERVISION (.5)**

This course is a continuation of the Fundamentals of Supervision course. Topics covered are: conducting an effective (and legal) interview; legal aspects of supervision including: EEO, sexual harassment, ADA, affirmative action; discipline, and grievance procedures; effective and productive performance appraisals; cultural diversity and its effect on the workplace; methods to motivate and empower employees, and the role group dynamics plays in effective supervision.

.5 hours lecture

## **RDG 022 INDIVIDUALIZED READING (3)**

Prerequisite: RDG 020.

A continuation of RDG 020 for second semester students whose Nelson-Denny scores remain below 12.1; individualized approaches to reading for mature adults, part-time evening vocational students or those who wish to concentrate on selected aspects of literal and critical comprehension while developing higher level thinking skills using college vocabulary.

3 hours lecture.

## **SOC 212 WOMEN AND MEN IN A CHANGING SOCIETY (3)**

Prerequisites: Required: SOC 101, completion of English 101 or 107 and 2.0 or higher grade level reading ability. Recommended: ENG 102 or ENG 108.

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

## **COURSE MODIFICATIONS**

### **AGR 224 FIELD EXPERIENCE IN AGRICULTURE AND NATURAL RESOURCES (1-6)**

Prerequisite: A declared major in Agriculture and Natural Resources.

Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **AJS 224 FIELD EXPERIENCE IN ADMINISTRATION OF JUSTICE (3)**

Prerequisite: A declared major in Administration of Justice. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing

NOTE: Change in prerequisite.

### **AMT 294 FIELD EXPERIENCE IN AVIATION MAINTENANCE TECHNOLOGY (3)**

Prerequisite: A declared major in Aviation Maintenance Technology. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **AMT 295 PRACTICUM AVIATION MAINTENANCE TECHNOLOGY UPGRADING (6 UNITS)**

Prerequisite: None.

Three categories of students will be eligible to take this course:

- 1 a student that has completed AVN 290.
- 2 a student that has passed the written FAA Airframe and/or Powerplant Mechanic's examination.
- 3 a student that holds a current FAA Airframe and/or Powerplant license.

An upgrade or refresher course in Aviation Maintenance Technology with emphasis on the development of practical skills required in the 43 subject areas of the aviation maintenance occupation as outlined in the FAA's Advisory Circular 65-2D. This course is not open to A & P students, as it does not meet degree requirements.

Note: Change in course description.

### **BIO 101 GENERAL BIOLOGY (4)**

Prerequisite: MAT 082.

NOTE: Addition of recommended prerequisite.

### **BIO 184 PLANT BIOLOGY (4)**

Prerequisite: One year of high school biology with grade of C or better, taken within the last five years or BIO 101 or permission of the instructor.

Recommended: 11.0 reading level, MAT 082.

NOTE: Change in prerequisite.

### **BIO 190 ANIMAL BIOLOGY (4)**

Prerequisite: One year of high school biology with grade of C or better, taken within the last five years or BIO 101 or permission of the instructor.

Recommended: 11.0 reading level, ENG 101, MAT 082.

NOTE: Change in prerequisite.

### **BIO 201 HUMAN ANATOMY & PHYSIOLOGY I (4)**

Prerequisite: Either one-year high school biology (C or better) taken in last 5 years or one semester of a 100 level college biology course or permission of the instructor. Recommended: Reading level 11<sup>th</sup> grade or above, ENG 101.

NOTE: Change in prerequisite.

### **BIO 202 HUMAN ANATOMY & PHYSIOLOGY II (4)**

Recommended: 11.0 reading level, ENG 101.

NOTE: Addition of recommended prerequisite.

### **BIO 205 MICROBIOLOGY (4)**

Prerequisite: Successful completion of a semester of a college biological science is highly recommended.

A survey of microbic life and fundamental biological types of all micro-organisms; control of micro-organisms and disease, and other aspects of applied microbiology.

NOTE: Change in prerequisite by replacing the term "completion" with "successful completion." Course description was modified by removing the phrase "other than bacteria."

## **BIO 226 ECOLOGY (4)**

Recommended prerequisites: Reading grade level 11 and ENG 101.

NOTE: Change in recommended prerequisite.

## **BUS 192 APPLICATIONS IN MANAGEMENT DEVELOPMENT (.5)**

This course is used by Center for Professional Development and they have updated the course to keep with the state-of-the-art technology.

BUS 192A	Business Communications and Writing Skills
BUS 192B	Making Presentations with Confidence & Power
BUS 192C	Communicating Across Cultures
BUS 192D	Fundamentals of Supervision
BUS 192E	Personnel Aspects of Supervision
BUS 192F	Leadership Techniques for Technical Managers
BUS 192G	Conflict Resolution
BUS 192H	Thinking Beyond the Boundaries
BUS 192I	Harmony in the Workplace
BUS 192J	Self-Directed Work Teams
BUS 192K	Management Skills for Support Staff
BUS 192L	Leading Organizational Change
BUS 192M	Positive Approaches to Change
BUS 192N	Proofreading, Editing, and Grammar Skills
BUS 192O	Customer Service – A Positive Approach
BUS 192P	Introduction to Grant Writing
BUS 192Q	Intermediate Grant Writing
BUS 192R	Positive Approaches to Difficult People
BUS 192S	Mastering Negativity
BUS 192T	Coping with Stress
BUS 192U	Project Management
BUS 192V	Starting a Small Business
BUS 192W	Writing a Winning Business Plan
BUS 192X	Marketing Small Business on the Internet
BUS 192Y	Developing a Safety Program for Business
BUS 192Z	Coaching and Counseling for Supervisors
BUS A192	Writing an Effective Contract Proposal

NOTE: The above BUS 192 courses have been placed in the new outcomes format.

## **BUS 224 FIELD EXPERIENCE IN BUSINESS ADMINISTRATION (1-6)**

Prerequisite: A declared major in Business Administration. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

## **CHM 235 GENERAL ORGANIC CHEMISTRY I (4)**

An introduction to the naming, structure, and properties of organic compounds with an emphasis on alkanes, stereochemistry, alkylhalides, alkenes, and nmr spectroscopy. Mechanisms and synthesis will be major themes studied in order to reveal the relationships between these different classes of compounds.

NOTE: Removal of hyphen in stereochemistry.

## **CHM 236 GENERAL ORGANIC CHEMISTRY II (4)**

A continuation of an introduction to the naming, structure, and properties of organic compounds with an emphasis on alcohols, ethers, epoxides, alkynes, aromatics, ketones, aldehydes, amines, carboxylic acids and their derivatives, enols, and enolate ions. Mechanisms and synthesis will be major themes studied in order to reveal the relationships between these different classes of compounds.

NOTE: The word "amines" was added to course description.

## **CIS 294 FIELD EXPERIENCE IN COMPUTER INFORMATION SYSTEMS (1-6)**

Prerequisite: A declared major in Computer Information Systems. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

## **DFT 224 FIELD EXPERIENCE IN DRAFTING (1-6)**

Prerequisite: A declared major in Drafting. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **EDU 224 \*FIELD EXPERIENCE IN EDUCATION (1-6)**

Prerequisite: A declared major in Educational Instruction. Permission and approval of a Cooperative Education Program Coordinator.

Recommended: Sophomore Standing.

A supervised internship in a pre-school, elementary or secondary educational institution designed to provide hand-on classroom experience. Number of units determined by the total hours to be spent at the job site in a given semester. May be taken four times for a maximum of 16 units, with a maximum of 6 units per semester.

### **ELT 224 FIELD EXPERIENCE IN ELECTRONICS (1-6)**

Prerequisite: A declared major in Electronics. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **EMT 174 \*EMERGENCY MEDICAL TECHNOLOGY (8)**

Prerequisite: Student must meet the following requirements: 1) be at least 18 years of age at class start time (2) possess a valid CPR card at the Health Care Provider Level from the American Heart Association of American Red Cross 3) read at least the 9<sup>th</sup> grade level 4) have a negative TB test or chest x-ray within 6 months prior to class start date 5) demonstrate immunity to Rubella by immunization record or titer results 6) demonstrate immunity to Rubeola by immunization record or titer results.

Provides the student with preparation for vocational work as an ambulance attendant and is required by the Arizona Department of Health Services (ADHS) for certification. The course also prepares the students for industrial, OSHA and virtually any other occupational safety standards certification. Students wishing certification must complete the state-mandated hours of clinical experience in a hospital emergency room. The course covers basic knowledge of the symptoms of illness and injury, the concomitant procedures considered the responsibility of the Emergency Medical Technician (EMT), basic legal responsibilities, anatomy and physiology, triage, assessment, CPR, and life-support systems. Curriculum meets ADHS standards set in 1994. Program is certified by the state.

7 hours lecture; 1 hour laboratory.

### **ENG 224 AMERICAN LITERATURE I (3)**

Prerequisite: ENG 102.

NOTE: Change in prerequisite.

### **ENG 225 AMERICAN LITERATURE II (3)**

Prerequisite: ENG 102.

NOTE: Change in Prerequisite.

### **FST 224 FIELD EXPERIENCE IN FIRE SCIENCE TECHNOLOGY (1-6)**

Prerequisite: A declared major in Fire Science Technology. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **GLG 110 ENVIRONMENTAL GEOLOGY (4)**

Prerequisite: None.

Recommended: GLG 101.

NOTE: Change in prerequisite.

### **HAD 224 FIELD EXPERIENCE IN HOSPITALITY ADMINISTRATION (1-6)**

Prerequisite: A declared major in Hospitality Administration. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **HLT 109 NURSING ASSISTANT ONE (4)**

Prerequisite: 9<sup>th</sup> grade reading level, MAT 072 or math placement score of 15.

NOTE: Change in prerequisite.

## THE FOLLOWING HPE COURSES ARE BEING MODIFIED TO REMOVE COED FROM THE TITLE.

### FROM:

HPE 105 Coed Low  
Intensity Aerobic Exercise  
HPE 106 Coed Aerobic  
Exercise  
HPE 110 Coed Body  
Conditioning  
HPE 111 Coed Body  
Conditioning  
HPE 112 Coed Weight  
Training  
HPE 113 Coed Athletic  
Conditioning  
HPE 122 Beginning  
Coed Karate  
HPE 123 Intermediate  
Coed Karate  
HPE 125 Coed Hiking  
HPE 126 Coed Backpacking  
HPE 130 Beginning  
Coed Swimming  
HPE 131 Intermediate  
Coed Swimming  
HPE 132 Advanced  
Coed Swimming &  
Water Sports  
HPE 133 Coed Life Saving  
& Water Safety  
HPE 135 Coed Skin &  
Scuba Diving  
HPE 142 Coed Basketball  
HPE 143 Beginning Coed  
Bowling  
HPE 144 Intermediate  
Coed Bowling  
HPE 145 Beginning Coed Golf  
HPE 146 Intermediate  
Coed Golf  
HPE 148 Beginning  
Coed Racquetball  
HPE 150 Coed Softball  
HPE 151 Coed Beginning  
Tennis  
HPE 153 Coed Volleyball

### TO:

HPE 105 Low Intensity  
Aerobic Exercise  
HPE 106 Aerobic Exercise  
HPE 110 Body  
Conditioning  
HPE 111 Body  
Conditioning  
HPE 112 Weight  
Training  
HPE 113 Athletic  
Conditioning  
HPE 122 Beginning  
Karate  
HPE 123 Intermediate  
Karate  
HPE 125 Hiking  
HPE 126 Backpacking  
HPE 130 Beginning  
Swimming  
HPE 131 Intermediate  
Swimming  
HPE 132 Advanced  
Swimming &  
Water Sports  
HPE 133 Life Saving &  
Water Safety  
HPE 135 Skin & Scuba  
Diving  
HPE 142 Basketball  
HPE 143 Beginning  
Bowling  
HPE 144 Intermediate  
Bowling  
HPE 145 Beginning Golf  
HPE 146 Intermediate  
Golf  
HPE 148 Beginning  
Racquetball  
HPE 150 Softball  
HPE 152 Intermediate  
Tennis  
HPE 153 Volleyball

## JRN 224 FIELD EXPERIENCE IN COMMUNICATION AND MEDIA TECHNOLOGY (1-6)

Prerequisite: A declared major in Communication or Media Technology. Permission and approval of a Cooperative Education Program Coordinator. Recommend Sophomore standing.

NOTE: Change in prerequisite.

## MAT 005 DEVELOPMENTAL MATHEMATICS (3)

NOTE: Course description rewritten to: MAT 005 is a course in basic mathematics. Math pre-test and student inventory responses are used to place students. Topics of instruction include: addition, subtraction, multiplication, division of whole numbers, fractions, decimals, and percentage applications.

## MAT 082 ELEMENTARY ALGEBRA (3)

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, solution of equations, polynomials and factoring, systems of equations, graphing equations and inequalities, rational expressions, radicals and quadratic equations.

NOTE: Course description was modified by replacing "solution" with "solutions" and "and applications" was added.

## MAT 172 FINITE MATH (3)

Prerequisite: Satisfactory completion of a course in College Algebra, MAT 151 or permission of the instructor.

NOTE: Change in prerequisite.

## MAT 212 CALCULUS FOR BUSINESS (3)

Elementary topics in analytic geometry, differential and integral calculus with business applications.

NOTE: Course description was changed by replacing "business application" to "business applications."

### **MAT 231 CALCULUS II (4)**

A continuation of MAT 220. Includes techniques of differentiation and integration of transcendental functions, and an introduction to finite series. Also covers topics in analytic geometry, parametric equations, and polar coordinates.

NOTE: Course description was changed by replacing "differentiating" to "Differentiation."

### **MTT 224 FIELD EXPERIENCE IN MOTOR TRANSPORTATION TECHNOLOGY (1-6)**

Prerequisite: A declared major in Motor Transport Technology. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **NUR 224 FIELD EXPERIENCE IN NURSING (1-6)**

Prerequisite: A declared major in Nursing. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **OAD 224 FIELD EXPERIENCE IN OFFICE TECHNOLOGY (1-6)**

Prerequisite: A declared major in Office Technology. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **PFT 294 FIELD EXPERIENCE IN PROFESSIONAL FLIGHT TECHNOLOGY (1-6)**

Prerequisite: A declared major in Professional Flight Technology. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **SOC 101 INTRODUCTION TO SOCIOLOGY (3)**

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.

NOTE: Change in course description.

### **SSV 224 FIELD EXPERIENCE IN SOCIAL SERVICES (1-6)**

Prerequisite: A declared major in Social Services. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

### **WLD 224 FIELD EXPERIENCE IN WELDING TECHNOLOGY (1-6)**

Prerequisite: A declared major in Welding Technology. Permission and approval of a Cooperative Education Program Coordinator. Recommended: Sophomore standing.

NOTE: Change in prerequisite.

## **PROGRAM DELETIONS**

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### **Middle Management Specialist Certificate**

NOTE: Replaced by Entrepreneurship/Small Business Management Certificate

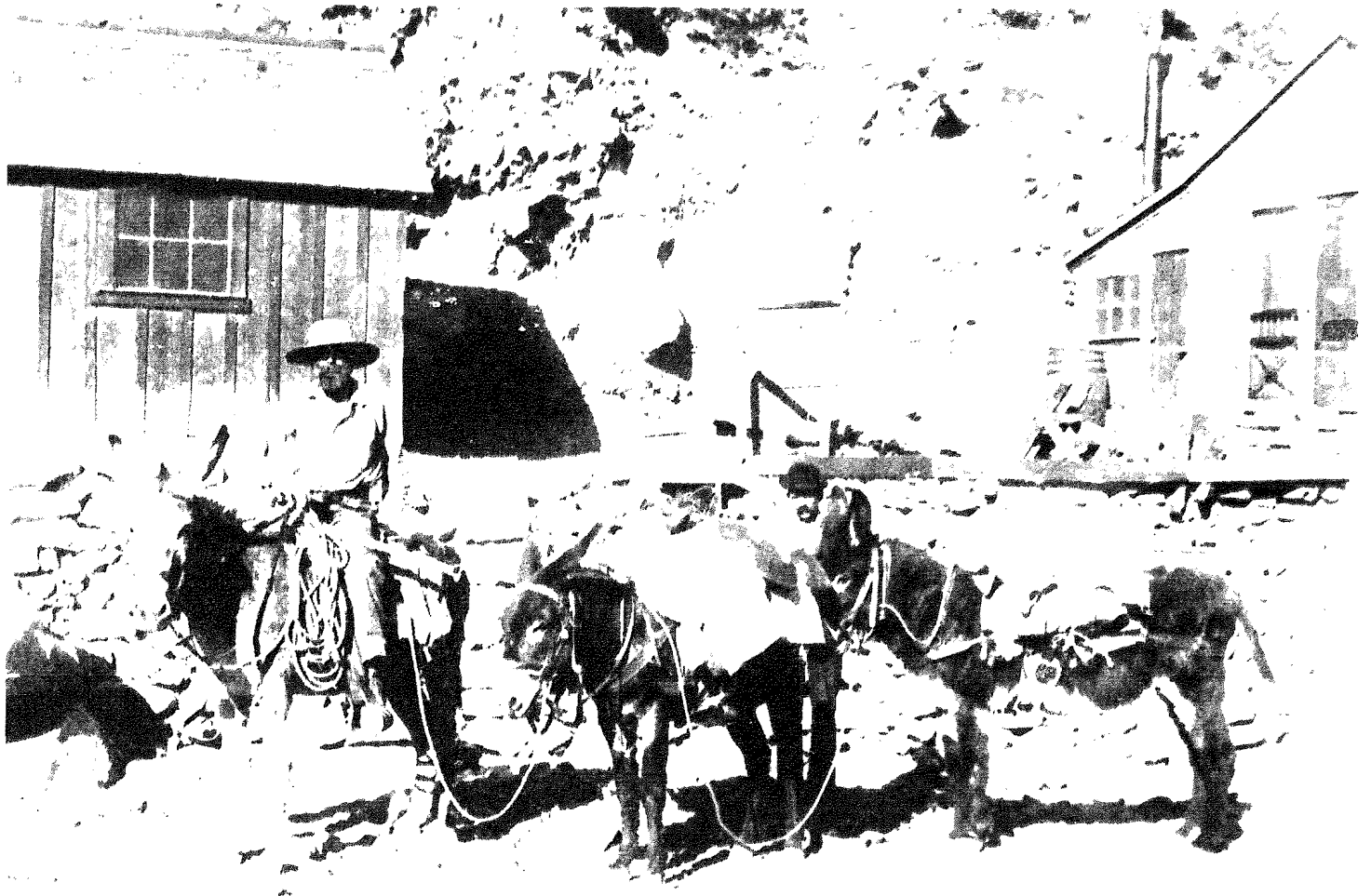
### **Women in Management Certificate**

### **Middle Management AAS Degree**

### **Business Administration, AS Degree**

NOTE: Replaced by the Associate of Business-General Business Major Degree

# COCHISE COLLEGE



1998-1999

*Catalog Addendum*

PART TWO

**PLEASE NOTE:**

Since the publication of the 1998-1999 Catalog Addendum, the Cochise College Governing Board has made changes that directly affect students. These changes include new programs, degrees, certificates, courses, and course modifications described in this catalog addendum. Students entering Cochise College before 1/1/99 may still use the catalog in place at the time of initial enrollment providing enrollment has been continuous.

# OUR DEGREES ARE CHANGING

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To ensure a smooth transfer from a community college to a state university, Arizona community colleges and public universities have agreed to develop three new transfer degrees: Associate of Arts, Associate of Business, and Associate of Science.

In cooperation with this effort, Cochise College beginning January 1, 1999, is offering three new degrees for transfer. We continue to offer a revised Associate of General Studies Degree, an Associate of Applied Science Degree and a variety of certificates for vocational training. The changes listed below are detailed on the following pages.

**New Transfer Degrees**

- Associate of Arts (AA)
- Associate of Business (ABus)
- Associate of Science (AS)

**Revised Degree**

- Associate of General Studies (AGS)

**New Direct Employment Degree**

- Associate of Applied Science (AAS)
- Network Management

**New and Revised Certificates**

- Management
- Network Support
- Paramedicine
- PC Maintenance and Repair
- Supervisory Management

Three references are required for a current listing of Cochise College degrees and programs: 1997-1999 catalog, Addendum I and Addendum II. Where to Look provides a quick user guide to these three references.

## WHERE TO LOOK

- Beginning January 1, 1999, all AA, AGS, and AS degree programs found on pages 54-79 in the 1997-1999 Catalog replace the degree programs found in this addendum. Students entering Cochise in January 1999 must follow the Addendum II.
- Students enrolled prior to January 1999, may choose to graduate under any catalog in effect during enrollment as long as they have not sat out for more than a year at any time.

## DEGREES AND CERTIFICATES

### NEW DEGREE OVERVIEW

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### DEGREE REQUIREMENTS

Addendum II Page 6

### ARIZONA GENERAL EDUCATION CURRICULUM (AGEC)

**TRANSFER BLOCKS** Addendum II Page 7

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### ASSOCIATE OF GENERAL STUDIES

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### ELECTIVES FOR AA, ABUS, AS AND AGS DEGREES

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Electronics Technology	Addendum I	Page 19
Fire Science Technology	1997-1999 Catalog	Page 64
Hospitality Administration	1997-1999 Catalog	Page 65
Media Communications	1997-1999 Catalog	Page 69
Network Management	Addendum II	Page 19
Nursing	1997-1999 Catalog	Page 70
Paramedicine	Addendum I	
Powerplant Operation	1997-1999 Catalog	Page 72
Professional Administrative Assistant	1997-1999 Catalog	Page 73
Professional Pilot Technology	1997-1999 Catalog	Page 58
Social Services	1997-1999 Catalog	Page 78
Welding Technology	1997-1999 Catalog	Page 79

**CERTIFICATES**

Avionics Technology	1997-1999 Catalog	Page 80
Building Maintenance**	1997-1999 Catalog	Page 89
Business Machine Repair	Deleted	
Business Skills**	1997-1999 Catalog	Page 89
Certified Public Manager	1997-1999 Catalog	Page 80
Chef de Cuisine-		
Food Preparation	Addendum I	
Chef Garde-Manger	Addendum I	
Chef Patisier-Bakers	Addendum I	
Computer Programmer	1997-1999 Catalog	Page 81
Computerized Office		
Applications	1997-1999 Catalog	Page 84
Consumer Electronics		
Repair**	1997-1999 Catalog	Page 90
Correctional Officer Training		
Academy	1997-1999 Catalog	Page 82
Custodial Services		
Certificate**	Addendum I	
Drafting and Design	1997-1999 Catalog	Page 82
Equine Science and		
Management	1997-1999 Catalog	Page 83
Entrepreneurship/Small Bus.		
Management	Addendum I	
Fire Science		
Technology	1997-1999 Catalog	Page 83
General Business	Addendum I	
General Electronics		
Technician**	1997-1999 Catalog	Page 90
Hospitality		
Administration	1997-1999 Catalog	Page 83
International		
Communications	1997-1999 Catalog	Page 84
International		
Management	Addendum I	

Medical Transcriptionist	1997-1999 Catalog	Page 85
Management	Addendum II	
Microcomputer		
Practitioner	1997-1999 Catalog	Page 81
Motor Transport		
Technology	1997-1999 Catalog	Page 84
Network Administrator	1997-1999 Catalog	Page 81
Network Support	Addendum II	Page 20
Nursing Assistant	1997-1999 Catalog	Page 84
Office Assistant	1997-1999 Catalog	Page 85
On-Line International		
Business	Addendum I	
Paralegal Studies	1997-1999 Catalog	Page 86
Paramedicine	Addendum II	
PC Maintenance and		
Repair	Addendum II	Page 20
Principles of Technology	Deleted	
Print Media Arts	1997-1999 Catalog	Page 86
Receptionist	1997-1999 Catalog	Page 87
Social Services	1997-1999 Catalog	Page 88
Sous Chef	Addendum I	
Supervisory		
Management	Addendum II	Page 21
Teacher Aid I and II	Addendum I	
UNIX System		
Administrator	Addendum I	
Welding Technology	1997-1999 Catalog	Page 88
Workplace English	1997-1999 Catalog	Page 88
Workplace Spanish	1997-1999 Catalog	Page 89

Associate of Applied Science and Certificate Programs are described in the 1997-1999 catalog. Changes and additions to AAS and Certificate programs are listed in Addendum I and II.

<b>NEW COURSES</b>	Addendum II	Pages 22-23
<b>PROGRAM</b>		
<b>DELETIONS</b>	Addendum II	Page 24
<b>APPENDIX A-TGXR</b>		
<b>UNIVERSITY</b>		
<b>MAJORS</b>	Addendum II	Pages 25-26

\*Under construction

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

# NEW DEGREE OVERVIEW

## ASSOCIATE OF ARTS (AA)

AA transfers as a block of 64 credits to Arizona public universities.

General Education Requirements (AGEC-A)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts (A)		3
Humanities (H)		3
Social and Behavioral Sciences (SBS)		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Language Requirement*	
Non-English Language 4th Semester Proficiency	16
Area of Emphasis or Electives	13
<b>Total Degree Requirements</b>	<b>64</b>

## ASSOCIATE OF BUSINESS (ABUS)

ABus transfers as a block of 64 credits to Arizona public universities.

General Education Requirements (AGEC-B)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 212	3
Laboratory Science		8
Arts (A)		3
Humanities (H)		3
Social and Behavioral Sciences (SBS)		6
Information Literacy	CIS 116, 120*	3
General Education Elective		3
Total General Education Requirements		35

6 credits of A/H/SBS must be Intensive  
Writing/Critical Inquiry Courses

Area of Emphasis	29
<b>Total Degree Requirements</b>	<b>64</b>

## ASSOCIATE OF SCIENCE (AS)

AS transfers as a block of 64 credits to Arizona public universities.

General Education Requirements (AGEC-S)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 220 or higher	3-5
Laboratory Science	PHY 230/231 or CHM 151/152 or BIO 184/190	8
Arts (A)		3
Humanities (H)		3
Social and Behavioral Sciences (SBS)		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Area of Emphasis	29
<b>Total Degree Requirements</b>	<b>64</b>

## ASSOCIATE OF GENERAL STUDIES (AGS)

Not intended for Arizona public university transfer as a block of credit

General Education Requirements		Credits
Composition	ENG 101 and one of the following: ENG 102, ENG 109, ENG 167, or ENG/CIS 279	6
Mathematics	MAT 122 or higher	3
Laboratory Science		4
Arts (A)		3
Humanities (H)		3
Social and Behavioral Sciences (SBS)		6
Information Literacy	CIS 116, 120*	3
Foreign Language or Communications		3-4
General Education Elective		3-4
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Electives	29
<b>Total Degree Requirements</b>	<b>64</b>

\*Students testing out of this requirement may choose elective credits

- Elective courses for the AA, ABUS, and AS must be transferable to all three Arizona public universities
- Courses included in the AA, AS or ABUS degrees must be completed with a grade of C or better
- 12th grade reading equivalency is required for all Cochise College Degrees

# DEGREE REQUIREMENTS

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## **AA, AS, ABUS**

All courses in an AA, AS, or ABUS degree must be completed with a "C" or better and must be transferable to all Arizona public universities.

## **AGS**

AGS degree requires a cumulative GPA of 2.0 or higher. Composition and mathematics courses used to meet general education requirements must have a grade of "C" or higher.

## **READING COMPETENCIES**

Minimum Reading Competencies for students earning all degrees must meet one of the following criteria.

### **For Native Speakers:**

Score 12.0 or higher on standardized reading test

Cumulative GPA of 3.0 for courses at the 100 level or above at the time of degree check

Completion of a reading course with a grade of "C" or better in which competency for the course is a 12.0 grade level or higher

### **For Non-native Speakers of English:**

Any of the above, as stated for native speakers of English.

A TOEFL score of 500 level or above, including a score of 50 on Section Three

Petition to a permanent standing committee comprised of an ESL representative, a reading representative and the appropriate instructional manager



# AGEC TRANSFER BLOCKS

AGEC stands for Arizona General Education Curriculum. The AGECE is a statewide agreement between Arizona public community colleges and universities.

AGEC is a 35 credit general education curriculum block that fulfills the lower division general education requirements at any Arizona public community college or university.

The AGECE has three forms, the AGECE-A, AGECE-B, and AGECE-S.

AGECE-A			AGECE-B			AGECE-S		
General Education Requirements		Credits	General Education Requirements		Credits	General Education Requirements		Credits
Composition	ENG 101, 102	6	Composition	ENG 101, 102	6	Composition	ENG 101, 102	6
Mathematics	MAT 151		Mathematics	MAT 212	3	Mathematics	MAT 220+	3-5
	or higher	3-5	Laboratory Science		8	Laboratory Science	BIO 184/190	
Laboratory Science		8	Arts		3		OR PHY 101/201	
Arts		3	Humanities		3		OR	
Humanities		3	Social and Behavioral Sciences		6		CHM 151/152	8
Social and Behavioral Sciences		6	Information			Arts		3
Information			Literacy	CIS 116, 120*	3	Humanities		3
Literacy	CIS 116, 120*	3	General Education Elective		3	Social and Behavioral Sciences		6
General Education Elective		1-3	Total General Education Requirements		35	Information		
Total General Education Requirements		35				Literacy	CIS 116, 120*	3
						General Education Elective		1-3
						Total General Education Requirements		35

## AGECE-A

The AGECE-A is a 35 credit block that fulfills the lower division general education requirements for university arts/liberal studies majors such as English, Social Science, Fine Arts, and Humanities. The block will transfer without loss of credit to any Arizona public community college or university.

## AGECE-B

The AGECE-B is a 35 credit block that fulfills the lower division general education requirements for university business/information systems majors. The block will transfer without loss of credit to any Arizona public community college or university.

## AGECE-S

The AGECE-S is a 35 credit block that fulfills the lower division general education requirements for university math and science majors. The block will transfer to any Arizona public community college or university.

\*Students testing out of this requirement may choose general education elective credit.

### IMPORTANT TO KNOW

A list of courses to fulfill area requirements is found on page 18. The General Education Elective must also be selected from this list.

Courses included in the AGECE block transfer must be completed with a grade of "C" or better.

A course can have dual use. It may be used to fulfill both an AGECE requirement and a common course requirement in the associates degree. Total credits toward a degree are not waived.

### TRANSFER GUIDE - EXCEPTIONAL REQUIREMENTS: TG-XR FOR TRANSFER STUDENTS IN PROFESSIONAL FIELDS (SEE APPENDIX A)

This option is for students who have decided on a university major in which the program requirements or prerequisites are so specific that a student must closely follow a university transfer guide. Students should not complete an AGECE block or associates degree. Majors in professional fields (for example, architecture, engineering, health professions, etc.) may have specific program requirements that must be completed before admission to the professional program. University transfer is on a course by course basis, not as a block transfer. See a Cochise College Counselor or Advisor for more information. See Appendix A at the end of the Addendum, pages 25-26.

# ASSOCIATE OF ARTS

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This degree is for students who are transferring to a university as a liberal arts major.

The Associate of Arts degree transfers as a block of 64 credits to all Arizona public universities.

Students will transfer with junior standing without loss of credit and complete 56 units for a total of 120 credits for most degrees.

If a student is transferring to a private Arizona university, or an out-of-state university, their transfer credits will be evaluated on a course by course basis.

**The Associate of Arts degree has 2 possible pathways:**

Associate of Arts-General Requirements is for students who have not decided on a major.

Associate of Arts-Special Requirements is for students who have decided on a major.

## ASSOCIATE OF ARTS - GENERAL REQUIREMENTS (AA-GR)

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### ASSOCIATE OF ARTS

#### General Requirements (AA-GR)

General Education Requirements (AGEC-A)	Credits
Composition ENG 101, 102	6
Mathematics MAT 151 or higher	3-5
Laboratory Science	8
Arts	3
Humanities	3
Social and Behavioral Sciences	6
Information Literacy CIS 116, 120*	3
General Education Elective	1-3
<b>Total General Education Requirements</b>	<b>35</b>

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Language Requirement*	
Non-English Language 4th Semester Proficiency	16
Electives**	13
<b>Total Degree Requirements</b>	<b>64</b>

\*Students testing out of this requirement may choose elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

### EXPLORATORY COURSEWORK WITHIN THE AA-GR

You can complete exploratory coursework at Cochise College in three ways:

1. Choose courses from the area of emphasis in any transfer degree (AA, ABUS, AS)
2. Take any course of interest to you that is transferable to all three universities
3. Select coursework from the following areas
  - Anthropology
  - Art
  - Economics
  - English
  - Geography
  - History
  - Humanities
  - Journalism & Media Arts
  - Philosophy
  - Political Science
  - Psychology
  - Sociology

### LANGUAGE PROFICIENCY REQUIREMENT

Students are required to demonstrate language proficiency through coursework, transfer, credit by examination, and/or native language proficiency. Cochise College offers the following coursework: German, Latin, French and Spanish at the 101 and higher level.

**Anthropology:**

ANT 101 Origin and Antiquity of Man  
ANT 102 Society and Culture

**Art:**

ART 107 Survey of World Art: Prehistoric-Gothic  
ART 108 Survey of World Art: Renaissance through  
the Twentieth Century

**Economics:**

ECN 201 Principles of Macroeconomics  
ECN 202 Principles of Microeconomics

**English:**

ENG 220 British Literature I  
ENG 221 British Literature II

**Geography:**

GEO 101 Physical Geography  
GEO 102 Cultural Geography  
GEO 121 World Regional Geography  
MAT 172 Finite Mathematics

**History:**

HIS 110 History of the United States, 1607-1877  
HIS 111 History of the United States Since 1877  
POS 110 American National Government  
POS 230 World Politics

**Humanities:**

Any Humanities Elective Course/No Common Core  
Classes

**Journalism & Media Arts:**

COM 110 Public Speaking  
JRN 101 Mass Media  
JRN 102 Basic Reporting

**Philosophy:**

PHI 111 Introduction to Philosophy  
PHI 113 Introduction to Logic and Language

**Political Science:**

POS 110 American National Government  
POS 230 World Politics

**Psychology:**

PSY 101 Introduction to Psychology  
PSY 230 Social Psychology  
PSY 250 Introduction to Psychological Research,  
Measurements & Statistics  
PSY 290 Experimental Psychology

**Sociology:**

SOC 101 Introduction to Sociology  
SOC 160 Ethnic Groups and Minorities  
SOC 210 Marriage and Family  
SOC 202 Social Problems  
SOC 212 Women & Men in a Changing Society



# ASSOCIATE OF ARTS - SPECIAL REQUIREMENTS (AA-SR)

The Associate of Arts-Special Requirements (AA-SR) pathway is for students who have decided on their university major. For the following university majors you are required to take specific common courses.

Administration of Justice

Art

Fine Art

English

Exercise Science, Health, Physical Education,  
Recreation and Wellness

Family and Consumer  
Sciences

History

Journalism and Media Arts

Language

Political Science

Psychology

Social Work

Sociology

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in Administration of Justice

#### General Education Requirements (AGEC-A) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Language Requirement\*

Non-English Language

4th Semester Proficiency 16

#### Common Courses

Introduction to Administration of Justice	AJS 101	3
Substantive Criminal Law	AJS 109	3
Procedural Criminal Law	AJS 260	3
Crime and Delinquency	AJS 225	3
Elective**		1
Total Common Courses		13
<b>Total Degree Requirements</b>		<b>64</b>

\*Students testing out of this requirement may choose 16 elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in Art

#### General Education Requirements (AGEC-A) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Language Requirement\*

Non-English Language

4th Semester Proficiency 16

#### Common Courses:

Survey of World Art	ART 107	3
Survey of World Art	ART 108	3
Electives	ART**	7
Total Common Courses		13
<b>Total Degree Requirements</b>		<b>64</b>

\*Students testing out of this requirement may choose 16 elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

ASSOCIATE OF ARTS

Special Requirements  
Emphasis in Fine Art

General Education Requirements (AGEC-A)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Language Requirement\*  
Non-English Language  
4th Semester Proficiency 16

Common Courses:

Select 13 credits from:		
Survey of World Art	ART 107	3
Survey of World Art	ART 108	3
Two Dimensional Drawing	ART 103	3
Drawing I	ART 107	3
Three Dimensional Drawing	ART 231	3
Elective		1
Total Common Courses		13

NOTE: ART 107 and/or ART 108 must be taken in the General Education Block or student will exceed 64 credits to obtain Associates Degree.

Total Degree Requirements 64

\*Students testing out of this requirement may choose 16 elective credits.  
\*\*Elective courses must be transferable to all three Arizona public universities.

ASSOCIATE OF ARTS

Special Requirements  
Emphasis in English

General Education Requirements (AGEC-A)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-4
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Language Requirement\*  
Non-English Language  
4th Semester Proficiency 16

Common Courses

British Literature I	ENG 220	3
British Literature II	ENG 221	3
Select 3 credits from:		3
American Literature I	ENG 224	3
American Literature II	ENG 225	3
Major American Writers	ENG 265	3
Electives**		4
Total Common Courses		13
Total Degree Requirements		64

\*Students testing out of this requirement may choose elective credits.  
\*\*Elective courses must be transferable to all three Arizona public universities.

ASSOCIATE OF ARTS

Special Requirements  
Emphasis in Exercise Science, Health, &  
Physical Education, Recreation and Wellness

General Education Requirements (AGEC-A)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

Language Requirement\*  
Non-English Language  
4th Semester Proficiency 16

Common Courses

Human Anatomy and Physiology I	BIO 201	4
Human Anatomy and Physiology II	BIO 202	4
Electives**		5
Total Common Courses		13
Total Degree Requirements		64

\*Students testing out of this requirement may choose elective credits.  
\*\*Elective courses must be transferable to all three Arizona public universities.

BIO 201 and BIO 202 could be used as general education lab science. Total credits are not waived.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in Family and Consumer Sciences

#### General Education Requirements (AGEC-A) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

#### Language Requirement\*

Non-English Language	
4th Semester Proficiency	16

#### Common Courses

Marriage and Family	SOC 210	3
Childhood Development	FCS 184	3
Developmental		
Psychology	PSY 240	3
Nutrition	FON 101	3
Elective**		1
Total Common Courses		13

Recommended elective: COM 110 Public Speaking.

#### Total Degree Requirements 34

\*Students testing out of this requirement may choose elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in History

#### General Education Requirements (AGEC-A) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

#### Language Requirement\*

Non-English Language	
4th Semester Proficiency	16

#### Common Courses

Select 13 credits from:		13
History of the United States, 1607-1877	HIS 110	3
History of the United States Since 1877	HIS 111	3
Survey of Western Civilization I	HIS 140	3
Survey of Western Civilization II	HIS 141	3
Survey of Western Civilization III	HIS 142	3
Elective		1
Total Common Courses		13

Recommend taking one of the history classes above as part of the AGECE block.

#### Total Degree Requirements 64

\*Students testing out of this requirement may choose elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in Journalism and Media Arts

#### General Education Requirements (AGEC-A) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be  
Intensive Writing/Critical Inquiry Courses

#### Language Requirement\*

Non-English Language	
4th Semester Proficiency	16

### Common Courses

Intro to Mass Communications	JRN 101	3
Basic Reporting	JRN 102	3
Public Speaking	COM 110	3
Electives**		4
Total Common Courses		13
<b>Total Degree Requirements</b>		<b>64</b>

\*Students testing out of this requirement may choose elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis In Language

#### General Education Requirements (AGEC-A) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be

Intensive Writing/Critical Inquiry Courses

Language Requirement\*

Non-English Language

4th Semester Proficiency 16

### Common Courses

Select 12 credits from: 12

Introduction to the English Language	ENG 255	
OR Introduction to Linguistics	LIN 101	3
Introduction to Spanish Literature I	SPA 220	3
Introduction to Spanish Literature II	SPA 221	3
Introduction to Mexican Literature I	SPA 224	3
Introduction to Mexican Literature II	SPA 225	3
Intermediate Spanish Conversation and Composition	SPA 275	3
Intermediate Composition and Conversation	SPA 276	3
Elective**		1
Total Common Courses		13
<b>Total Degree Requirements</b>		<b>64</b>

\*Students testing out of this requirement may choose elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis In Political Science

#### General Education Requirements (AGEC-A) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be

Intensive Writing/Critical Inquiry Courses

Language Requirement\*

Non-English Language

4th Semester Proficiency 16

### Common Courses

American National Government	POS 110	3
World Politics	POS 230	3
Comparative Politics	POS 240	3
Electives**		4
Total Common Courses		13
<b>Total Degree Requirements</b>		<b>64</b>

\*Students testing out of this requirement may choose elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in Psychology

General Education Requirements (AGEC-A)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be

Intensive Writing/Critical Inquiry Courses

Language Requirement\*

Non-English Language

4th Semester Proficiency 16

#### Common Courses

Introduction to Psychology	PSY 101	3
Social Psychology	PSY 210	3
Introduction to Psychological Research, Measurement & Statistics	PSY 250	3
Experimental Psychology	PSY 290	3
Electives**		1
Total Common Courses		13
Total Degree Requirements		64

\*Students testing out of this requirement may choose elective credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in Social Work

General Education Requirements (AGEC-A)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		3
Total General Education Requirements		35

6 credits of A/H/SBS must be

Intensive Writing/Critical Inquiry Courses

Language Requirement\*

Non-English Language

4th Semester Proficiency 16

#### Common Courses

Introduction to Psychology	PSY 101	3
Introduction to Social Work	SOC 207	3
Introduction to Psychological Research, Measurement & Statistics	PSY 250	3
Developmental Psychology	PSY 240	3
Elective Course**		1
Total Common Courses		13
Recommended elective: PHI 111 Intro to Philosophy or PHI 130 Ethics		
Total Degree Requirements		64

\*Students testing out of this requirement may choose elective credits.

\*\*Elective course must be transferable to all three Arizona public universities.

## ASSOCIATE OF ARTS

### Special Requirements

#### Emphasis in Sociology

General Education Requirements (AGEC-A)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 151 or higher	3-5
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		1-3
Total General Education Requirements		35

6 credits of A/H/SBS must be

Intensive Writing/Critical Inquiry Courses

Language Requirement\*

Non-English Language

4th Semester Proficiency 16

#### Common Courses

Select 12 credits from:		12
Introduction to Sociology	SOC 101	
Ethnic Groups and Minorities	SOC 160	3
Social Problems	SOC 202	3
Marriage and Family	SOC 210	3
Women & Men in a Changing Society	SOC 212	3
Elective Course**		1
Total Common Courses		13
Total Degree Requirements		64

\*Students testing out of this requirement may choose elective credits.

\*\*Elective course must be transferable to all three Arizona public universities.

# ASSOCIATE OF BUSINESS

The Associate of Business (ABus) degree transfers as a block of 64 credits to all Arizona public universities. Students will transfer with junior standing without loss of credit and complete 56 units for a total of 120 credits for most degrees.

There are two ABus transfer pathways available at Cochise College: General Business and Computer Information Systems.

## ASSOCIATE OF BUSINESS

### General Requirements

#### Emphasis in General Business

General Education Requirements (AGEC-B)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 212	3
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		3
Total General Education Requirements		35

#### Common Courses

Quantitative Business		
Analysis	BUS 172	3
Financial Accounting	BUS 201	3
Managerial Accounting	BUS 202	3
Business Statistics	BUS 219	3
Legal Environment of Business	BUS 233	3
Principles of Macroeconomics	ECN 201	3
Principles of Microeconomics	ECN 202	3

#### CHOOSE STUDY AREA BELOW

##### General Business Study Area

Introduction to Data Processing		CIS 120	3
Business Elective		BUS/ECN Prefix**	5

##### Accounting Study Area

Object Oriented Programming		CIS 227	4
Programming (select one)			4
COBOL Programming		CIS 202	4
JAVA Programming		CIS 208	4
Windows Programming		CIS 218	4
Total Common Courses			29

**Total Degree Requirements 64**

\*Students testing out of this requirement may choose general education credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

Note: ABus requires Business Calculus; Calculus I, II, and/or III do not substitute for this requirement.

## ASSOCIATE OF BUSINESS

### Special Requirements

#### Emphasis in Computer Information Systems

General Education Requirements (AGEC-B)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 212	3
Laboratory Science		8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective		3
Total General Education Requirements		35

#### Common Courses

Quantitative Business		
Analysis	BUS 172	3
Financial Accounting	BUS 201	3
Managerial Accounting	BUS 202	3
Business Statistics	BUS 219	3
Programming (Select One)		4
C Programming	CIS 204	4
Object Oriented		
Programming	CIS 227	4
Programming (Select One)		4
COBOL Programming	CIS 202	4
JAVA Programming	CIS 208	4
Windows Programming	CIS 218	4
Principles of		
Macroeconomics	ECN 201	3
Principles of		
Microeconomics	ECN 202	3
Elective	BUS/CIS Prefix**	3
Total Common Courses		29

**Total Degree Requirements 64**

\*Students testing out of this requirement may choose general education credits.

\*\*Elective courses must be transferable to all three Arizona public universities.

# ASSOCIATE OF SCIENCE

The Associate of Science degree is designed to transfer as a block of 64 credits to all Arizona public universities. Students will transfer with junior standing without loss of credit and complete 56 units for a total of 120 credits for most degrees. There are three AS transfer pathways available at Cochise College: Biology, Chemistry and Computer Science.

## ASSOCIATE OF SCIENCE

### Special Requirements

#### Emphasis in Biology

#### General Education Requirements (AGEC-S) Credits

Composition	ENG 101, 102	6
Mathematics	MAT 220 or higher	3-5
Laboratory Science	PHY 230/231 OR CHM 151/152	8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective**		1-3
Total General Education Requirements		35

#### Common Courses

Plant Biology	BIO 184	4
Animal Biology	BIO 190	4
Electives**		21

Students are advised to take Chemistry and Biology.  
May count as AGECE or Common Courses.

Total Common Courses	29
<b>Total Degree Requirements</b>	<b>64</b>

## ASSOCIATE OF SCIENCE DEGREE

### Special Requirements

#### Emphasis in Chemistry

General Education Requirements (AGEC-S)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 220 or higher	3-5
Laboratory Science	PHY 230/231 OR CHM 151/152	8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Electives**		1-3
Total General Education Requirements		35

#### Common Courses

General Organic Chemistry	CHM 235	4
General Organic Chemistry II	CHM 236	4
Laboratory Science	PHY 230/231 OR CHM 151/152	8
Calculus II	MAT 231	4

Electives**	9
Total Common Courses	29
<b>Total Degree Requirements</b>	<b>64</b>

Students are required to take PHY 230/231 and CHM 151/152; may count as AGECE or Common Courses.

NOTE: Calculus III is recommended for university transfer, not required.

\*Students testing out of this requirement may choose general education elective credit.

\*\*Elective courses must be transferable to all three Arizona public universities.

## ASSOCIATE OF SCIENCE

### Special Requirements

#### Emphasis in Computer Science

General Education Requirements (AGEC-S)		Credits
Composition	ENG 101, 102	6
Mathematics	MAT 220 or higher	3-5
Laboratory Science	PHY 230/231	8
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
General Education Elective**		1-3
Total General Education Requirements		35

#### Common Courses

Programming Language (Select One)		4
C Programming	CIS 204	4
JAVA Programming	CIS 208	4
Data Structures		
(Same Lang. as above)	CIS 220	4
Digital Logic	CIS 221	3
Discrete Math	MAT 227	3
Calculus II	MAT 231	4
Calculus III	MAT 241	4
Assembler w/Architecture	CIS 206	4
Chemistry	CHM 151	4
Total Common Courses		30
<b>Total Degree Requirements</b>		<b>64</b>

CIS 130 is a prerequisite for programming classes.

\*\*Elective courses must be transferable to all three Arizona public universities.

# ASSOCIATE OF GENERAL STUDIES

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The Associate of General Studies (AGS) degree is designed for students who wish to develop a program of study to meet their individual educational needs. See an advisor or counselor for additional information on the AGS degree.

## ASSOCIATE OF GENERAL STUDIES (AGS)

General Education Requirements		Credits
Composition	ENG 101 and one of the following: ENG: 102, ENG 109, ENG 167 or ENG/CIS 279	6
Mathematics	MAT 122 or higher	3-5
Laboratory Science		4
Arts		3
Humanities		3
Social and Behavioral Sciences		6
Information Literacy	CIS 116, 120*	3
Foreign Language or Communications		3-4
General Education Elective		1-4
Total General Education Requirements		35
Electives		29
<b>Total Degree Requirements</b>		<b>64</b>

\*Students testing out of this requirement may choose elective credits.

- The AGS degree requires a cumulative GPA of 2.0 or higher.
- Composition and mathematics courses used to meet general education requirements must have a grade of C or better.
- Electives may be selected from any Cochise College course at or above 100 level.

# ELECTIVES FOR AA, ABUS, AS AND AGS DEGREES

There are two kinds of electives:

**General Education Elective** - Part of the 35 credit Gen Ed block. Any course in the list below or HPE179 may be used as a Gen Ed elective

**Degree Elective** - Used to complete the 64 credit degree requirement.

## COURSES WHICH MEET GENERAL EDUCATION REQUIREMENTS (GER) FOR THE AA, ABUS, AS, AND AGS

### THE LIST

Composition: ENG101, ENG102  
Mathematics: MAT151, MAT172, MAT182, MAT187, MAT212, MAT220, MAT227, MAT231, MAT241, MAT252, MAT262

Lab Science: AST180, BIO101, BIO105, BIO160, BIO183, BIO184, BIO190, BIO201, BIO202, BIO205, BIO226, CHM100, CHM130, CHM140, CHM151, CHM152, CHM235, CHM236, GEO101, GLG101, GLG102, GLG110, PHY111, PHY112, PHY230, PHY231

Social & Behavioral Sciences:\* ECN 201, ECN202, GEO102, GEO104, GEO105, GEO121, HIS110, HIS111, HIS140, HIS141, HIS142, POS100, POS220, POS230, POS240, PSY101, PSY 210, PSY230, PSY240, SOC101, SOC160, SOC202, SOC210, SOC230, SSV273

Arts:\* ART103, ART106, ART107, ART108, ART120, ART230, ART231, ART270, ART275, ART280, ART 281, ENG119, ENG219, MUS101, MUS109, MUS110, MUS133

Humanities:\* ART103, ART106, ART107, ART108, ENG209, ENG210, ENG219, ENG220, ENG221, ENG222, ENG226, ENG227, ENG228, ENG265, HUM205,

### DEGREE ELECTIVES FOR AA, ABUS, AND AS

AA, ABUS, and AS elective courses must transfer to all three Arizona public universities. Select from this list or see a Course Equivalency Guide for additional courses that transfer to all three universities. Advisors can help choose the elective courses based on the Arizona Course Equivalency Guide information.

### DEGREE ELECTIVES FOR THE AGS

Electives may be selected from any Cochise College course above 100 level.

HUM206, HUM207, JRN102, MUS102, PHI111, PHI130, PHI201, SPA221, SPA225, THE103,

Information Literacy: CIS116, CIS120

Intensive Writing/  
Critical Inquiry:\*\* ENG119, ENG209, ENG219, ENG220, ENG221, ENG222, ENG226, ENG227, ENG228, ENG265, HIS140, HIS141, HIS142, HUM205, HUM206, HUM207, PHI111, PHI130, PSY240, SOC210

General Education  
Electives: Courses that satisfy one of the areas above and HPE 179.

This list applies to new degrees effective 1/1/99.

\*Courses in the Arts, Humanities, and Social & Behavioral Sciences have content addressing ethnic/race/gender awareness, and contemporary global/international or historical awareness embedded in the coursework.

\*\*The AA, ABUS, AGS and AS require 6 credits of Intensive Writing/Critical Inquiry. Students can use Intensive Writing/Critical Inquiry courses to satisfy Arts, Humanities, Social and Behavioral Science requirements.

# NEW AAS DEGREES APPROVED SINCE 97-99 CATALOG PUBLICATION

The Associate of Applied Science (AAS) degree is designed to prepare graduates for employment in a specific career. Students should meet with an advisor or counselor to plan their program of study. The AAS degree requires a minimum of 64 credits. Please see the 1997-99 Catalog, pages 54 to 79 and Addendum I for information on AAS degrees and requirements

## ASSOCIATE OF APPLIED SCIENCE ELECTRONICS TECHNOLOGY

See AAS degree General Education minimum requirements in the Degrees and Programs section of 1997-1999 Catalog.

General Education Requirements		Credits
English Composition	ENG 101	3
Mathematics	ELT 110 or MAT 122	3
Mathematics	ELT 120 or MAT 151	3-5
Arts & Humanities and/or Social & Behavioral Sciences		3
General Education Electives		6
Minimum General Education Credit Hours		18-19
Core Curriculum		Credits
Introduction to DC Circuits		3
Introduction to AC Circuits		4
Semiconductors & Transistors		4
Electronic Circuits and Systems		4
Pulse Circuits		4
Digital Circuits		4
Modern Electronic Devices		4
Communications Electronics		4
Communications Electronics II		4
Microprocessors & Microcomputers		4
Electives		3-4
Total Degree Requirements		64

## ASSOCIATE OF APPLIED SCIENCE NETWORK MANAGEMENT

General Education: Requirements		Credits	
English Composition	ENG 101 OR Applied Technical Writing ENG 179	3	
Advanced Applied Technical Writing	ENG 279	3	
Mathematics	MAT 122 and above	3	
Digital Logic	CIS 221	3	
Arts & Humanities or Social & Behavior Science		3	
Reading Competency			
Minimum General Education Credit Hours		15	
Core Curriculum			
Introduction to Operating Systems		CIS 140	4
PC and Printer Support		CIS 142	3
Essentials of Networking		CIS 150	3
Computer Applications		CIS 181	3
Service and Maintenance of Personal Computers		CIS 260	3
Network Support and Troubleshooting		CIS 262	4
Technical Presentations		OAD 268	3
Field Experience in CIS		CIS 294	3
Technology Unit Approved Electives			6
<b>Network Tracks</b>			
(Select two full tracks plus introductory class of the non selected track)			
Track I			
Introduction to Novell Networks		CIS 234	4
Novell Network Management		CIS 235	4
Track II			
Network Operating Systems		CIS 236	4
Advanced Microsoft Network Management		CIS 237	4
Track III			
Unix Operating System		CIS 228	4
Unix System Administration		CIS 229	4
Total Network Tracks Credits			20
Total Degree Requirements			66

# CERTIFICATES: NEW AND MODIFIED

Beginning Spring 1999, Cochise College offers the following new certificates:

Management  
Network Support  
Paramedicine  
PC Maintenance and Repair  
Supervisory Management

See the Cochise College 1997-99 catalog, pages 80 – 91 and Addendum I for a list of current certificates.

## MANAGEMENT CERTIFICATE

This Management Certificate is in response to the clearly identified need for a program that provides supervisory and management training to employees in the private and non-profit sectors and to individuals anticipating employment opportunities as supervisors or managers. This program is comparable to the Certified Public Manager Program (CPM) currently offered, to public sector employees only, by the Center for Professional Development (CPD).

MGT 101 or PAD 101 Management Skills	2
MGT 102 or PAD 102 The Manager & Systems Relationships	2
MGT 103 or PAD 103 The Manager & the Workgroup	2
MGT 201 Management, Level IV	3
MGT 202 Management, Level V	3
MGT 203 Management, Level VI	3
ENG 101 Composition*	3
Or BUS 167 Business Communications*	3
Recommended Electives*	3
TOTAL	21 Credits

\*Requirement waived for individuals holding an AA/AS degree or higher.

### Recommended Electives

SOC 101 Intro to Sociology  
BUS 201 Financial Accounting  
PSY 101 Intro to Psychology  
BUS 202 Managerial Accounting  
SOC 207 Intro to Social Welfare  
BUS 145 Principles of Accounting  
CIS 181 Computer Applications

## NETWORK SUPPORT CERTIFICATE

### Core Curriculum

CIS 221 Digital Logic	3
CIS 140 Introduction to Operating Systems	3
CIS 142 PC and Printer Support	3
CIS 150 Essentials of Networking	3
CIS 234 Introduction to Novell Networks	4
CIS 235 Novell Network Management	4
CIS 236 Network Operating Systems	4
CIS 237 Advanced Microsoft Network Management	4
CIS 262 Network Support and Troubleshooting	4
CIS 260 Service and Maintenance of PC	3
CIS 294 Field Experience in CIS	1
TOTAL	36

## PARAMEDICINE CERTIFICATE

The Paramedicine Certificate Program meets the needs of those students desiring only Arizona Department of Health Services certification as a Paramedic or those students who desire an interim recognition of academic achievement as they continue to pursue the AAS degree in Paramedicine. Cochise College has obtained ADHS certification as an institutional provider of Paramedicine training.

EMT 201 Paramedicine I	12
EMT 202 Paramedicine II	14
EMT 203 Paramedicine III	2
TOTAL	28 Credits

## PC MAINTENANCE AND REPAIR CERTIFICATE

CIS 140 Intro to Operating Systems	3
CIS 142 PC and Printer Support	3
CIS 150 Essentials of Networking	3
CIS 260 Service and Maintenance of PCs	3
CIS 294 Field Experience in CIS	2
TOTAL	14 Credits

## **SUPERVISORY MANAGEMENT CERTIFICATE**

The Supervisory Management Certificate program is designed to provide the knowledge and analytical skills necessary to effectively meet the challenges and opportunities facing supervisors and managers in the workplace. This program provides the skills necessary to manage resources and personnel in a rapidly changing work environment. Upon successful completion of program requirements, students will receive a certificate in supervisory management.

**Prerequisite:** Sponsorship by a government agency or private/non-profit organization, a current supervisory or management position or potential for appointment to a supervisory/management position.

### **Core Curriculum**

#### **Intro to Management**

Skills	PAD 101/MGT 101	2
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#### **The Manager and Systems**

Relationships	PAD 102/MGT 102	2
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#### **The Manager and the**

Work Group	PAD 103/MGT 103	2
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English Composition*	ENG 101	3
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Mathematics*	Above 100 Level	3
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Recommended Electives*		3
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TOTAL		15
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\*Requirement waived for individuals holding an AA/AS degree or higher

Reading minimum of 11.5 grade level in accordance with standardized test scores.

# NEW COURSES

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## **CIS 208 JAVA PROGRAMMING (4)**

Prerequisites: CIS 130 or permission of instructor

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 221 DIGITAL LOGIC (3)**

Prerequisites: One semester of programming or one semester of networking.

Number systems, conversion methods, binary and complement arithmetic, Boolean and switching algebra, circuit minimizations, ROMs, PLAs, flipflops, synchronous sequential circuits, register transfer design.

3 hours lecture

**The following management courses are offered through the Center for Professional Development.**

## **MGT 101 THE INTRODUCTION TO MANAGEMENT SKILLS (2)**

Prerequisites: Sponsorship by a private or non-profit sector employer or approval of the Coordinator of the Center for Professional Development (CPD).

A practical introduction to private and non-profit sector management for first-line supervisors or potential supervisors. Focus is on communication techniques, delegation of authority, quality management, performance evaluation, discipline, and employee orientation. MGT 101- MGT 103 is offered as a single program and may not be taken individually or out of sequence. May be offered in a Pass/Fail grading format. Identical to PAD 101.

2 hours lecture.

## **MGT 102 THE MANAGER AND SYSTEM RELATIONSHIPS (2)**

Prerequisites: MGT 101

A practical study of the manager as a member of an organization with emphasis upon the processes and procedures necessary for managerial competence. Topics include management practices, employee motivation, organizational communications, budgetary systems and management, equal employment opportunity, and employee-management relations. MGT 101- MGT 103 is offered as a single program and may not be taken individually or out of sequence. May be offered in a Pass/Fail grading format. Identical to PAD 102.

2 hours lecture

## **MGT 103 THE MANAGER AND THE WORK GROUP (2)**

Prerequisites: MGT 102

A practical analysis of the manager as a group/team leader, focusing on group dynamics, behavioral analysis, group problem solving and decision making, change management, conflict management, and group interaction. MGT 101- MGT 103 is offered as a single program and may not be taken individually or out of sequence. May be offered in a Pass/Fail grading format. Identical to PAD 103.

2 hours lecture

## **MGT 201 LEADERSHIP SKILLS FOR MANAGERS (3)**

Prerequisite: Sponsorship by a private or non-profit sector employer, and successful completion of MGT 101-103 or PAD 101-103 or possession of the equivalent level of training as certified by the CPD Coordinator.

A practical, in-depth study of private and non-profit sector management techniques focusing on leadership, ethics, management in a political environment, management of fiscal resources and organizational planning. Also includes the study of marketing fundamentals, marketing strategy, and linking marketing with organizational goals. MGT 201 is offered as part of a management certificate program and may not be taken as an individual course or out of sequence. May be offered in a Pass/Fair grading format.

3 hours lecture

## **MGT 202 EFFECTIVE DECISION-MAKING (3)**

Prerequisites: MGT 201

A practical, in-depth study of private sector management techniques focusing on effective decision-making, conflict management, performance evaluation and achieving organizational goals through teamwork. MGT 202 is offered as part of a management certificate program and may not be taken individually, or out of sequence.

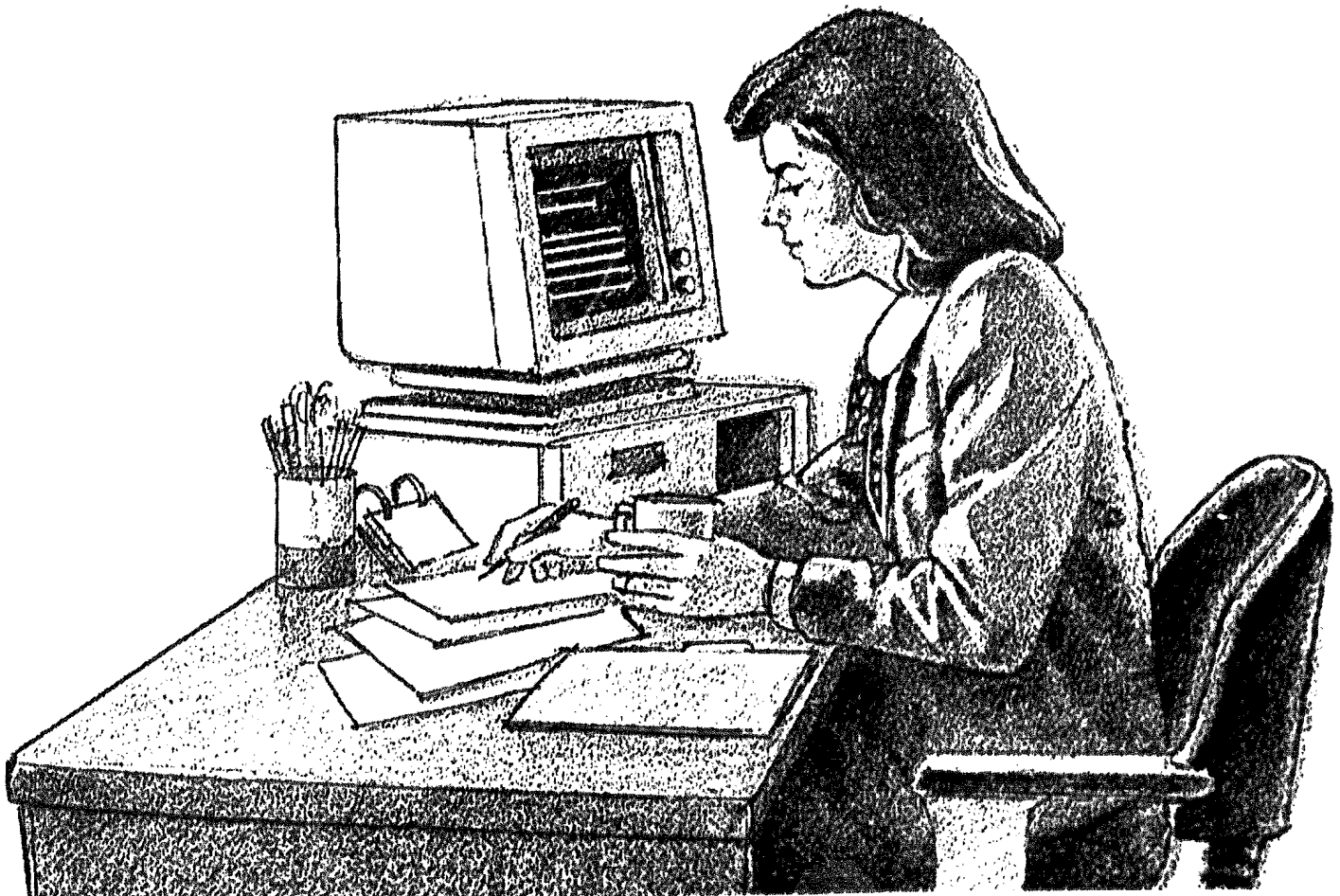
3 hours lecture

## **MGT 203 SUCCESSFUL PROJECT MANAGEMENT (3)**

Prerequisites: MGT 202

A practical, in-depth study of private and non-profit sector management techniques focusing on project management, managing and achieving organizational goals and effectively managing organizational change. MGT 203 is offered as part of a management certificate program and may not be taken individually, or out of sequence.

3 hours lecture



# PROGRAM DELETIONS

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## **PRINCIPLES OF TECHNOLOGY CERTIFICATE**

Rationale: The Principles of Technology certificate program is a program designed for the inmates of the Arizona Department of Corrections in Douglas (ASPC-D). This program has not been offered at ASPC-Douglas since 1991 and there are no prospects that it will be offered or in demand in the foreseeable future.

## **BUSINESS MACHINE REPAIR**

Rationale: The Business Machines Repair certificate program is a program specifically designed for the inmates of the Arizona Department of Corrections in Douglas (ASPC-D). This program has not been offered at ASPC-Douglas since 1991 and there are no prospects that it will be offered or in demand in the foreseeable future.



# APPENDIX A – TG-XR UNIVERSITY MAJORS

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See a Cochise College Counselor or Advisor for transfer guide information for the following programs:

**Administration of Justice:**

- BS in Justice Studies (ASU Main)
- BS in Criminal Justice (NAU)

**Agriculture:**

- BS in Agriculture-Nutritional Sciences (UA)
- BS in Wildlife, Watershed, & Range Management (UA)

**Art:**

- BFA in Studio Arts (NAU)
- BFA in Studio Arts (UA)

**Education:**

- BA in Education (ASU Main)
  - Elementary Education
  - Secondary Education
  - Selected Studies
  - Special Education
  - Early Childhood Education
- BA in Education (ASU West)
  - Elementary Education
  - Early Childhood Education
  - Secondary Education
  - Special Education
- BS in Education (NAU)
  - Technology Education
  - Vocational Education

**Engineering:**

- BS in Aeronautical Engineering Technology (ASU Main)
- BS in Aeronautical Management Technology (ASU Main)
- BS in Electronics Engineering Technology (ASU Main)
  - BS in Industrial Technology (ASU Main)
- BS in Manufacturing Engineering Technology (ASU Main)
  - BS in Engineering (ASU Main)
    - Aerospace
    - Chemical
    - Civil
    - Computer Systems
    - Electrical
    - Special Studies
    - Manufacturing (Premedical, Industrial)
    - Materials Science
    - Mechanical

- BS in Aeronautical Engineering Technology (ASU East)
- BS in Electronics Engineering Technology (ASU East)
- BS in Industrial Technology (ASU East)
- BS in Manufacturing Engineering Technology (ASU East)
- BS in Agribusiness (ASU East)
- BS in Computer Science & Engineering (NAU)
- BS in Engineering (NAU)
  - Civil
  - Electrical
  - Environmental
  - Mechanical
- ES in Construction Management (NAU)
- ES in Engineering (UA)
  - Aerospace
  - Agricultural & Biosystems
  - Chemical
  - Civil
  - Computer
  - Electrical
  - Engineering Mathematics
  - Engineering Physics
  - Geological
  - Hydrology
  - Industrial
  - Materials Science
  - Mechanical
  - Mining
  - Optical
  - Systems

**Geology:**

- ES in Geology (NAU)
- ES in Education-Earth Science (NAU)
- ES in Geosciences (UA)

**Hospitality:**

- BS in Hotel & Restaurant Management (NAU)

**Interior Design:**

- ES in Design-Interior Design (ASU Main)
- ES in Interior Design (NAU)

**Mathematics:**

- BA in Mathematics (ASU Main)
- BS in Mathematics (ASU Main)
- BS in Mathematics (NAU)
- BA in Education-Mathematics (NAU)
- BA in Mathematics (UA)
- ES in Mathematics (UA)

**Music:**

- EM in Instrumental Performance (NAU)
- BM in Music (NAU)
- BM in Vocal Music Performance (NAU)
- BME in Choral Music (NAU)
- EME in Instrumental Music (NAU)
- BA in Jazz Studies (UA)
- BA in Music Education (UA)
- BA in Musical Performance (UA)
- BA in Musical Composition (UA)

**Nursing:**

- BS in Nursing (ASU Main)
- BS in Nursing (NAU) BS in Nursing (UA)

**Sociology:**

- BA in Applied Sociology (NAU)
- BS in Applied Sociology (NAU)

**Theatre:**

- BA in Musical Theatre