

# COCHISE COLLEGE



## CATALOG 1973-1974

# **CATALOG and ANNOUNCEMENTS**

**Academic Year 1973-74**

## **Cochise College**

**Douglas, Arizona 85607**

**Area Code 602**

**Telephone: 364-3451, 432-5737**  
**(Douglas) (Bisbee)**

Cochise College is accredited by  
The North Central Association of  
Colleges and Secondary Schools

# TABLE OF CONTENTS

COLLEGE CALENDAR .....	3
ADMINISTRATION .....	4
FACULTY .....	5
GENERAL INFORMATION .....	9
History .....	9
Accreditation and Transfer .....	9
Philosophy of Education .....	10
Aims and Objectives .....	10
Degree .....	11
Advisory Committees .....	11
Continuing Education .....	11
Cochise College Foundation .....	13
Community Services .....	13
Learning Resources Center .....	13
ADMISSION PROCEDURES AND POLICIES .....	14
FEES .....	19
STUDENT SERVICES .....	24
ACADEMIC PROCEDURES AND POLICIES .....	34
INSTRUCTIONAL PROGRAMS .....	45
College-parallel .....	45
Occupational .....	45
Cooperative Education .....	46
COURSE OFFERINGS .....	62
INDEX .....	114

# Cochise College Calendar

1973-74

## Fall Semester

Fall Counseling and Registration	August 23-24
Orientation	August 25, 26
Classes Begin	August 27
Labor Day — Holiday	September 3
Last Day for Adding Classes	September 4
Columbus Day — Holiday	October 1
Mid-Semester Examinations	October 15-19
Veteran's Day — Holiday	October 22
Last Day to Drop Classes Without Penalty	October 26
Thanksgiving Recess	November 22, 23
Final Examinations	December 17-21
Classes End	December 21

## Spring Semester

Spring Semester Counseling & Registration	December 13, 14
Classes Begin	January 14
Last Day for Adding Classes	January 21
Washington's Birthday — Holiday	February 18
Mid-Semester Examinations	March 4-8
Last Day to Drop Classes Without Penalty	March 8
Spring Recess	March 11-15
Classes Resume	March 18
Final Examinations	May 13-16
Commencement	May 16

## Professional Pilot Calendar

The Professional Pilot Program does not operate on a standard semester basis. The Pilot Program is a continuing program and students may enter at any time at the discretion of the Aviation Department. The program leads to an Associate in Arts Degree. Refer to page 46 for complete details.

## Airframe and Powerplant Calendar

A new class starts every 20 weeks, with starting dates as follows:

1973 — Jan. 2, May 21, Oct. 8  
1974 — March 18, Aug. 5,  
1975 — Jan. 6

Vacations are limited to a week each at Christmas and Fourth of July. The Associate in Science (two-year) Degree may be awarded at the completion of this concentrated 50-week program. Although starting dates are shown, entrance into this program may be accomplished at any time at the discretion of the Aviation Division.

# ADMINISTRATION

## Governing Board

Ed. J. Donnelly .....	Chairman
Matthew Borowiec .....	Secretary
Dr. Charles Di Peso .....	Member
Fred Dunsmore .....	Member
Charles Bloomquist .....	Member

## Arizona State Community College Board

Dr. C. Theodore Kraft .....	Cochise County Representative
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## Administration

John R. Edwards, Ph.D .....	President
Howard N. Monnett, M.A. ....	Executive Dean
Don R. Johnson, M.A. ....	Dean of Liberal Arts
Knox Talley, M Ed. ....	Dean of Occupational Education
Gilbert T. Olsen, Ph.D. ....	Dean of Business Affairs
Therman Healy, Ed.Spec. ....	Coordinator of Student Affairs
Donald E. Fry, M.A. ....	Coordinator of Student Activities and Housing
Ida Ojeda, M.A. ....	Director of Learning Resources Center
Garth Whatcott, B.S. ....	Comptroller
Garth D. Johnston .....	Director of Public Information
Roy Kane, M.A. ....	Director of Fort Huachuca-Sierra Vista Center
Albert Velasco .....	Superintendent of Buildings and Grounds

The Governing Board reserves the right to change or withdraw without notice courses, curriculums, policies, tuition or any other matters contained in this catalog.

# **FULL-TIME FACULTY**

( ) Denotes year in which professor joined Cochise College faculty

## **AVIATION AND TECHNOLOGY DIVISION**

Harry R. Elkins, Director of Aviation & Industrial Training; BS, MEd. University of Illinois (1968)  
Robert W. Anderson, BS St. Cloud State College (1968)  
June Barreras, BS Nurses Education College of Holy Names, NEd University of Arizona (1964)  
James H. Basinger, BS St. Louis University (1971)  
Wilmer Bassett, BS Brigham Young University (1968)  
Ruth Belknap, BS Foote Memorial Hospital, BS Central Michigan University, MA Michigan State University (1970)  
Douglas Berchem, AA University of Illinois, BS Western Michigan University (1969)  
Edgardo Bustamante, U.S.A. Ret. (1970)  
Marion Dormann, BS, RN Adelphi University (1969)  
Robert Dunker, AS Western Iowa Tech., BSE University of South Dakota (1972)  
Jan Faber, BSN, NEd University of Florida (1971)  
Robert F. Frias, (1973)  
James B. Haxton, AA Cameron State Agriculture College (1968)  
Keith Jackson, BA, MEd University of Arizona (1969)  
Fred Johnson, AA Cochise College (1969)  
Ralph R. Longnecker, AA Cochise College (1971)  
Lee Oppenheim, BA University of New Mexico (1968)  
Charles Perry, BS-BA Denver University (1969)  
Dewey Tally, BS Northern Arizona University (1969)  
Tom Waddoups, BS University of Idaho (1968)  
Lois Wheeler, BSN, MN Montana State University (1972)

## **BUSINESS DIVISION**

Melvin Englestad, BS, MSEd Moorhead State College (1968)  
Roman Salazar, AA Eastern Arizona College, BS Northern Arizona University, MS Utah State (1970)

## **COMMUNICATIONS, HUMANITIES AND FINE ARTS DIVISION**

Joe Gilliland, Division Chairman, BA, MA University of Texas (1964)  
Martin H. Behnke, BA, MA San Jose State College (1971)  
John Doty, AA Santa Monica City College, AB University of Southern California,  
MS California State University at Los Angeles (1966)  
Larry Gunter, BA Indiana University, MA College of Holy Names (1968)  
Marjorie Holiman, BA, MA University of Arizona (1968)  
Arlo Janssen, BA, MA University of Arizona (1966)  
Ray Levra, BS Montana State College, MFA University of Oregon (1965)  
Alicya Malik, AB Wayne University, MA University of Michigan (1964)  
Allan Meyer, BA Nebraska University, MA Catholic University of America (1970)  
William D. Miller, BA Reed College, MA University of Oregon, MA UCLA (1971)  
Vern Mosher, AA Mesa College, BA University of Northern Colorado (1971)  
Mary Lee Shelden, AA Phoenix College, BS, MA Northern Arizona University  
(1967)  
Baysol Turner, AA Phoenix College, BA, MA Arizona State University (1966)  
Irel Urreiztieta de Rivera, BA, MA University of Arizona (1972)

## **COOPERATIVE EDUCATION**

Ray Willcox, Coordinator; BA University of Northern Colorado (1968)  
Holton Alderman, BS University of Southern Mississippi, MA Mississippi  
State University (1970)  
William Lent, AA Delta College, BA Arizona State University (1972)  
Ronald Olson, AB University of Northern Colorado, MA Colorado State University  
(1972)  
John Siavelis, BS University of Arizona (1972)

## **HEALTH, PHYSICAL EDUCATION, RECREATION AND ATHLETICS DIVISION**

Gerald Bequette, Division Chairman; BS, MS University of Arkansas (1968)  
Richard Atkinson, BS Kansas State College, MS Kansas State University (1966)

## **LEARNING RESOURCES CENTER**

Ida Ojeda, Director; BA Arizona State University, MA Northern Arizona University  
(1965)  
Alice J. Loyda, Assistant to the Director; BA George Williams College, MLS  
Texas Woman's University (1973)

## **SCIENCE, SOCIAL SCIENCE AND MATH DIVISION**

John Jewell, Division Chairman; BA Northland College, MA New Mexico Highlands University (1965)  
Vivian Boysen, AB, MA University of South Dakota (1966)  
Donald Campbell, AB San Jose State College, MA Stanford University (1964)  
Larry Christiansen, BS, MS Utah State University (1967)  
Esther Crampton, AB Colorado State College, MA University of Wisconsin, PhD American University (1967)  
Charles Field, BS Cornell University, MAgR Purdue University (1967)  
Mildred Galliher, BS, MS University of Arizona (1969)  
George Huncovsky, BS, MS University of North Dakota (1964)  
Richard Myers, BA University of New Mexico, MA Northern Arizona University (1964)  
David Pettes, AB Duke University, MAT Emory University (1968)  
Gene Riggs, BS, MEd., MS Oklahoma State University (1966)  
Frank Siciliano, BA State University of New York at Albany, MEd University of Arizona (1968)  
Keith Stuart, BSc, MSc University of Oregon (1964-67, 1970)  
Del C. Willsey, BS University of Arizona, MNS Arizona State University (1970)

## **OFFICE OF STUDENT AFFAIRS**

Dan Rehurek, Admissions & Placement Officer; BS University of South Dakota Southern, MA University of Northern Colorado (1967)  
Mike Ramsey, Counselor; MEd Ohio University (1970)  
Hugh Reilly, Registrar; BSEd Concordia College (1970)  
Ron Thies, Counselor; BS Missouri Valley College, MA University of Missouri (1972)  
Marge McKesson, Chiricahua Residence Hall Officer (1969)  
Eleanor Torrey, Hauchuca Hall Residence Hall Officer and College Nurse; Wesson Memorial Hospital, Springfield, Mass.; BS Northern Arizona University (1971)

## **ADULT NON-CREDIT**

Fred Mulcahy, Associate Director, Title I (HEA 1965); BBA Loyola University (Chicago) (1970)

## **SKILL CENTER — NEEDLE TRADES**

Carmen Ramos, Coordinator (1969)  
Margarita Ybarra, Instructor (1969)  
Gloria Ramirez, Instructor (1969)

## SPECIAL PROGRAMS

University Year for ACTION, Joe Escobar  
Upward Bound, new Director to be appointed  
Construction Trade Program, Bob Curtis

## NURSING PROGRAM — RESOURCE MEDICAL PERSONNEL

C.W. Ahl, MD, Douglas, Arizona  
Guy Atonna, MD, Douglas, Arizona  
R. E. Montgomery, MD, Douglas, Arizona  
George Spikes, MD, Douglas, Arizona  
Susan Bickle, Dietitian, Cochise County Hospital, Douglas, Arizona  
Alice Cloud, Director of Nursing, Cochise County Hospital, Douglas, Arizona  
Mary Foppe, Supervisor of Surgery, Cochise County Hospital, Douglas, Arizona  
Marcella Grace, Assistant Director of Nursing, Cochise County Hospital, Douglas, Arizona  
Nakamure Miya, Inservice Director, Cochise County Hospital, Douglas, Arizona  
Josephine Reidinger, Supervisor-Extended Care, Cochise County Hospital, Douglas, Arizona  
Lucy Vasquez, Supervisor-ICU, Cochise County Hospital Douglas, Arizona  
Adolene Wedzik, Director of Nursing, Copper Queen Hospital, Bisbee, Arizona  
Irene Welender, Operating Room Supervisor, Copper Queen Hospital, Bisbee, Arizona  
Manuel Zazueta, Lab Director, Cochise County Hospital, Douglas Arizona



Spring semester 1973 Registration

# GENERAL INFORMATION

## History

Cochise College, a community college, was the second college organized under the act of the Twenty-Fourth Arizona State Legislature providing for district or county junior colleges. The establishment of the college district in 1961 and the funding for construction of the facility in 1962 represented a dedicated effort on the part of the citizens of Cochise County.

The College was first opened to students in September, 1964. Unlike many community colleges, Cochise serves both commuter and resident students by offering residence hall facilities, thus making it a service institution to the entire state.

The college campus is situated along Highway 80 approximately 16 miles east of the Bisbee-Lowell-Warren area and 7.5 miles west of Douglas. The fifteen-building campus is located on a 540-acre site.

The College district is controlled by the seventeen-member Arizona State Board of Directors for Junior Colleges and by a five-man Governing Board elected from precincts in Cochise County. It is financed by legislative appropriation and a county-wide levy.

## Accreditation and Transfer

Cochise College is accredited by the Arizona State Board of Directors for Junior Colleges, and the North Central Association of Colleges and Secondary Schools. Students who complete appropriate lower division courses with a grade of C or better are accepted with full credit or transfer to the University of Arizona, Arizona State University, Northern Arizona University and all other universities and colleges in the nation.

Cochise College, working in close cooperation with the three Arizona universities, has developed transfer curriculum guides for most programs. These guides, available to students, detail required and elective courses in each curriculum area.

The College holds memberships in the Arizona Association of Junior Colleges, the Council of North Central Junior Colleges and the North Central Association of Colleges and Secondary Schools.

## Philosophy of Education

Cochise College, as a comprehensive community college, is dedicated to the service of its community. The College makes education beyond the high school level available to students interested in, and capable of, benefiting from programs of higher education.

The quality and effectiveness of instruction offered by the College is important to those interested in higher education — students, teachers, administrators, alumni, and the general public. The administration of the College facilitates instruction and leads its staff and students to personal and group fulfillment in their educational endeavors. Free communication, a free flow of ideas and feelings among the administration, the faculty, the students, the Governing Board, and the community is essential for the realization of personal and institutional goals.

## Aims and Objectives

The main aims and objectives of Cochise College:

1. To provide a program of general education which encompasses the common knowledge, skills and attitudes needed by each individual to be effective as a person, a member of a family, a worker, and a citizen in our democratic society.
2. To assist each student to orient himself to adult and college life by providing a program of counseling which enables him to discover his aptitudes and interests and helps him in the choice of a vocation or further formal education.
3. To provide educational opportunity in several occupations for those students who wish to prepare for immediate employment upon completion of the appropriate program. The programs are designed to enable students to achieve occupational competence and to provide them with opportunities for achieving skills for living in a contemporary society.
4. To offer studies during the first two years of college which may be used in transfer for the purpose of securing a bachelor's degree (the candidate for a bachelor's degree can transfer to the institution of his choice with full junior standing, after having successfully completed appropriate lower division studies during the first two full years of college).
5. To provide for the educational needs of mature and receptive adults whose interests and requirements lie in both cultural activities and occupational fields.

6. To make available other community services for the growth of the citizens of the county through lectures, forums, plays, concerts, art exhibits, and other cultural activities.
7. To provide a program of guided studies which will enable students in need of developmental work to pursue studies appropriate to their individual needs and to promote honors study programs for students with superior academic capabilities.
8. To cooperate with other schools and colleges, with civic groups, with educational foundations, and with private individuals and corporations in any proper endeavor likely to result in an educational advantage to the students of the College and the community.

## **Degree**

By the authorization of the Arizona State Board of Directors for Community Colleges, Cochise College may confer the Associate degree on those students completing 60 or more units in prescribed courses with a C average or better. In addition to the degree programs, special certificated programs are offered which require less than two years of studies.

## **Advisory Committees**

In order that curricula leading directly to employment be developed in accordance with the needs of business, industry, and the professions, Cochise College has invited a number of leaders in enterprises related to these curricula to advise the College staff on (1) the nature and extent of employment needs, (2) course content, (3) facilities and equipment needed, and (4) the appropriateness of the curriculum content and the quality of the students receiving the degree or certificate.

To date the curriculum recommendations of several different citizen advisory committees have been implemented (see list under "Occupational Programs"). As additional needs are identified new advisory committees will be formed to assess the appropriateness, for Cochise College, of programs to meet these needs.

## **Continuing Education**

For those who wish to continue their education and training but are unable to attend regular daytime classes at the main campus, Cochise College offers day classes, evening classes and extension classes each semester in the Sierra Vista area and any community in Cochise County.

Detailed announcements concerning extension classes are made at the beginning of each semester through special publications. Extension classes parallel day courses in prerequisites, course content, time devoted to preparation of assignments, and examinations.

Students attend Extension classes to prepare for a vocation, to gain a better education, and to satisfy requirements for university transfer. Professors gear their teaching methods to adults and their problems, but the course content and requirements remain the same for day and evening classes. Some day students take a portion of their class load in the evening.

In addition to guidance through individual contacts with faculty members during their office hours, the Extension program provides specialized counseling and academic advisement. Information and appointments may be arranged by telephone. High school and college transcripts and/or counseling examinations are required for admission to a number of classes.

The requirements for the Associate degree are the same for part-time students as for full-time students, namely, 60 passing units in the prescribed courses with a grade point average of 2.0 or better. Physical Education, however, is not required. Certificated programs have specialized requirements.

## **Cochise College**

### **Fort Huachuca-Sierra Vista Center**

The Fort Huachuca-Sierra Vista Center located on the grounds of Buena High School in Sierra Vista offers both day and evening classes in college-parallel programs and in such occupational programs as Middle Management, Police Science and Secretarial Studies. A student may matriculate at the Center as a full-time student and complete the AA degree in a variety of college programs.

A full schedule of classes is also offered at Fort Huachuca Army Education Center.

For further information about classes and programs offered at the Fort Huachuca-Sierra Vista Center, write:

Director, Cochise College  
Fort Huachuca-Sierra Vista Center  
PO Box 1668, Sierra Vista, Arizona 85635  
or Telephone 458-7110

## **Cochise College Foundation**

Cochise College Foundation, incorporated March 20, 1967, supports the educational objectives of Cochise College.

It has a countywide membership of 61 general members and a group of 15 men and women serving as officers and as directors.

The Foundation, having received Internal Revenue Service qualification, is a recognized avenue for receipt of money, property or other things of value bequeathed or given for the benefit of the College whether for specific purposes or for general use.

The Foundation, in this role, has devoted some of such money received on a matching basis for construction of a rodeo complex on campus, as seed money for United Student Aid Funds for loans to college students, to Cochise College Aviation Division for purchase of wrecked airplanes from private owners to be rebuilt as part of the laboratory work by Airframe and Powerplant students enrolled in the College, and on a matching basis for construction of an Anthropological Resource Center.

## **Community Services**

As a community college, Cochise College wishes to extend its educational services to the needs of the entire county. Community Services is that phase of the educational program which provides educational, cultural, and recreational services over and beyond formalized classroom instruction.

With this in mind Cochise College provides a number of community services: a College speaker's bureau, offering faculty lectures without charge; a program of public events and cultural activities including lectures and forums; art exhibits, film series, a program of non-credit courses, and community use of the Learning Resources Center.

Other community services include institutes, workshops, and lectures to meet special needs of business, industry, and the professions; community recreation, campus tours, public information, and community participation in the College program through citizens' committees.

## **Learning Resources Center**

The Learning Resources Center, one of the most modern resource buildings in the Southwest, had been planned to meet the curricular needs of students and to provide optimum resources and facilities for college work. In addition to a large, open-stack reading and reference room, there are listening facilities, group study rooms, a lecture-exhibit room and an audio-visual section.

# ADMISSION PROCEDURES AND POLICIES

Prospective students are encouraged to visit the campus and discuss their educational objectives with the Admissions Officer. The Office of Admissions, located in the Student Services Office on the west side of campus, is open throughout the year, Monday through Friday, 9:00 a.m. to 4:30 p.m. An appointment is preferable though not required.

All high school graduates are admitted to Cochise College. Those who have not graduated from high school will be admitted if they have reached the age of 19 on the first day of classes. Others who have not graduated from high school and are under age 19 may be admitted with high school equivalency examinations such as GED or into special programs.

A Letter of Admission is sent to each applicant after the College has received and approved the following:

1. Application for Admission
2. \$5.00 application fee for out-of-state students

Those who have received a Letter of Admission are then eligible to pay fees and register for classes after they have submitted the following:

1. The Cochise College Medical Form. Self-appraisal form is required of full-time campus students only.
2. \$40.00 room deposit if planning to live in the college residence hall. All single students are advised to live in the college residence hall if they are not commuting from home of their parents, legal guardian or relative. The room deposit is refunded less any damage charges when the student leaves the college.
3. A graduation transcript or passing scores on the GED or other high school equivalency test.
4. High School and College transcripts for college transfer students.

College entrance examinations, such as ACT or SAT, are no longer on the admission requirement. However, the college does administer the ACT on the national testing dates for October, February and July as a service to county students who wish to take the test.

High school and college transcripts are to be sent from the sending institution to the Office of Admissions of Cochise College and not carried by the applicant.

Cochise College has adopted a self-appraisal medical form which goes into effect in the fall of 1973. This form does not require a physical examination by a

physician. However, the college reserves the right to require a physical examination, completed by a physician, when deemed necessary by the College Health Services or any particular program at Cochise College.

Programs which will require a medical form completed by a physician are:  
Professional Pilot (form must be completed by an FAA-approved physician)  
Nursing Program  
Intercollegiate Athletics

## **PROFESSIONAL PILOT AND NURSING PROGRAMS**

Since there are more applicants than spaces in the Professional Pilot and the Associate Degree (RN) Nursing Programs, please observe the following:

Contact the Aviation or Nursing Departments and arrange for a personal interview; Aviation before March 1 or November 1, Nursing before March 1. Also submit applications for admission to Aviation before March 1 or November 1, Nursing before March 1. Those admitted to Aviation program will be notified 30 days prior to starting dates, to Nursing by April 1.

Students admitted to the Pilot Program or the Nursing Program must submit a non-refundable deposit to secure their place in the Program. The deposit for the Professional Pilot Program is \$100. The deposit for the Nursing Program is \$80. Professional Pilots must have deposits in 30 days prior to starting date. The deposits will apply toward the Educational Service Fee at the time of registration.

## **FINANCIAL AIDS**

Students applying for financial aids, which include scholarships, loans, grants, and campus jobs, must submit the following to the Financial Aids Officer of Cochise College by March 1 to be eligible for financial aids:

1. Financial Aids Application — Arizona College Form
2. ACT Family Financial Statement

Financial aids are not available to part-time students.

## **SUMMER NEWSLETTER**

The College sends a Summer Newsletter and the Schedule of Classes to new and returning students in mid-July. These contain detailed information on counseling, registration, housing, the freshman orientation program, and items of interest.

## **Readmission**

Any student who previously attended Cochise College and who is returning to the College after an absence of one semester or more must arrange for an ap-

pointment with an admissions counselor. If a student has attended any other educational institution since previous attendance at this College, transcripts must be supplied for all academic work for which the student enrolled in the period since last attending Cochise College.

**COLLEGE ADDRESS** — Send admissions communications to:

Office of Admissions  
Cochise College  
Douglas, Arizona 85607  
Douglas Phone: (602) 364-3451  
Bisbee Phone: (602) 432-5737

## **Residence Requirements**

### **Residence in Local High School District**

Students whose residence is in one of the high school districts comprising the Cochise College District are qualified to enroll at Cochise College according to "Admission Procedures and Policies," above.

### **Residence in High School Districts**

#### **Not Maintaining A Community College**

Students who reside in a county not maintaining a junior college are eligible to attend Cochise College. Students from such areas must complete a residence statement at the time of registration; their tuition will be paid by the county of residence.

### **Residence in Districts Maintaining A Community College**

Students enrolled in a program at Cochise College which is not available in the community college in their home district will not be charged Out-of-County tuition.

Students enrolled in a program at Cochise College which is also available in the community college in their home district may receive a tuition waiver. (Details are available at Admissions Office).

### **Students from Outside State**

Under an ordinance of the State Community College Board tuition waivers are no longer available to assist non-residents of the state to attend an Arizona Community College. (Scholarship monies, booster funds and certain federal program funds will still be available for non-state students).

# RESIDENCY REGULATIONS

The Arizona State Board of Directors for Community Colleges has established the following residency requirements of the community colleges of Arizona in accordance with Sections 15-791 through 15-795, Arizona Revised Statutes, as amended:

## Persons Under 18 Years of Age

1. A person who is under 18 years of age and whose parent is not domiciled in Arizona is classified as an out-of-state person for tuition purposes.
2. A person who is under 18 years of age whose parent has moved to Arizona but has not established a domicile in the State one year prior to the first day of classes as published by the college for the semester for which the person is registering is classified as an out-of-state person for tuition purposes.
3. A person under 18 years of age has the domicile of the legal guardian if (a) a letter of guardianship of the person, issued by a court, is presented for inspection, and (b) the guardian has been domiciled in Arizona for one year or more immediately preceding the first day of classes.
4. A person under 18 years of age may be eligible for the status of Emancipated Minor for tuition purposes. To gain this status, the person must submit clear and convincing evidence that (a) he is self-supporting, (b) he is not living with his parent or guardian, and (c) there has been a complete severance of the parent relationship as to all legal rights and liabilities, including care, custody, control, and support. After being granted this status, the person must then meet the same conditions required of persons 18 years or more for establishing Arizona domicile.
5. A person under 18 years of age has the domicile of the parent having legal custody when the parents have been divorced or legally separated. Legal custody must be verified by an inspection of a certified copy of the court order. Where the custody of a minor has been granted to one parent, but the minor has lived with and been supported by the other parent for one year or more next preceding the first day of classes as published by the college, a request may be made to be classified according to the domicile of the supporting parent.
6. A person under 18 years of age whose parent is a member of the Armed Forces of the United States and stationed in Arizona under military orders shall be entitled to classification as an in-state student. A student, while in continuous attendance toward the degree for which he is currently enrolled, shall not lose his in-state student classification when his parent is thereafter transferred on military orders.
7. Any unemancipated person who remains in this State when his parent, who had been domiciled in this State, removes from this State, shall be entitled to

classification as an in-state student until attainment of the degree for which he is currently enrolled, so long as he maintains continuous attendance.

8. While the domicile of an unemancipated person shall be that of his parents or legal guardian, the date of his parents' establishing a domicile in this State shall be considered the date for determining the domicile of the person after he becomes emancipated.

### **Persons Aged 18 Years or More**

9. A person who is aged 18 years or more whose parents are not domiciled in Arizona does not qualify for in-state status even though he has resided in Arizona the calendar year immediately preceding his 19th birthday. A person aged 18 years or more must present proof that domicile in the State of Arizona has been established (independently of the circumstance of attendance at an Arizona institution of learning) for one year immediately preceding the first day of classes.
10. No emancipated person has established a domicile in this State while attending any educational institution in this State as a full-time student, in the absence of a clear demonstration to the contrary.
11. A person from another state who has reached the age of majority in the state from which he originated may establish a domicile in Arizona subject to the requirements for establishing such domicile in this State.
12. A woman acquires the domicile of her husband as of the date of marriage. An out-of-state woman who marries a domiciliary of Arizona may have her classification for tuition purposes changed to in-state. A wife of an out-of-state person may not qualify for in-state classification, except, an in-state woman student who marries an out-of-state person may retain in-state classification while continuous attendance is maintained.
13. A person does not gain or lose in-state status by reason of his presence in any state or country while a member of the armed forces of the United States. Military personnel stationed in Arizona, their spouses and dependents shall be considered as in-state residents during the time the member of the Armed Forces is stationed in Arizona. An unemancipated person whose parent is stationed in Arizona on military orders shall be entitled to classification as an in-state student and to retain this classification while in continuous attendance.
14. A member of the Armed Forces stationed in Arizona may obtain in-state status by establishing a domicile of one year's duration in Arizona.
15. An alien student attending on an F-1 (student) visa will be classified as out-of-state. A non-citizen holding a visa which permits establishing an Arizona domicile must meet the same requirements established for a citizen to qualify for in-state classification.
16. Out-of-state tuition is waived for students enrolling for no more than six units.

## Out of-State Students

Out-of-state students are welcome at Cochise College

## Veterans

Cochise College has been approved for veterans training under all federal and Arizona laws. The Registrar acts as the veterans' coordinator. Veterans should confer with the Registrar at the time of registration concerning educational benefits. Veterans must carry 12 contact hours to be considered a full-time student.

By Arizona Statute, in determining the admissibility to the community college of a veteran, honorably discharged who has served in the armed forces of the United States for a minimum of two years and who was previously enrolled at a university or community college in Arizona, no failing grades by such veteran at any Arizona university or community college prior to his military service may be considered.

The student admitted or re-admitted to Cochise College under this statute is subject to progression, retention, graduation, and other academic regulations and standards in this catalog.

# TUITION, FEES, AND OTHER CHARGES

The Cochise County Community College District Governing Board and the State Board of Directors for Community Colleges of Arizona have approved the schedule of charges for 1973-74 as shown below.

All semester fees must be paid in full at the time of registration, except that arrangements may be made to pay the room, board and tuition on a two-payment basis.

## SEMESTER TUITION SCHEDULE

### A. Full-time Students (12 or more units):

*Per Semester*

1. Residents of Cochise County .....	No Charge
2. Military personnel and their dependents living in Cochise County .....	No Charge

3. Residents of counties other than Graham, Pinal, Yavapai, Yuma, (home county pays Cochise College \$600 per semester) .....	No Charge
4. Residents of other states & foreign countries .....	\$650
<b>B. Part-time Students (1-11 units):</b>	
1. County residents including military personnel and their dependents .....	No Charge
2. Residents of other counties, states & foreign countries	
1 - 6 units .....	No Charge
7 - 11 units .....	\$50.00 per unit
<b>C. Summer Session</b> .....	\$15.00 per unit

## REGISTRATION FEE

A. Students carrying 10 or more units .....	\$80
B. Students carrying 1 to 9 units .....	25

## SEMESTER ROOM AND BOARD

<b>A. Room and Board Charges:</b>	
1. Regular students (17 weeks) .....	\$490
2. A & P students (10 weeks) .....	268
3. Professional Pilot students	
a. Phase I (July 9 - Dec. 31, 1973), (24 weeks) .....	\$693
b. Phase II (Jan. 14 - June 7, 1974), (20 weeks) .....	576

All full-time resident students who are single are advised to live in college housing and have their meals in the college dining hall. This does not apply to the commuting student who lives in his own home or with legal guardian or relatives. The board payment provides a seven (7) day meal ticket for the semester with twenty meals each week when classes are in session.

<b>B. Room Deposit</b> .....	\$40
The room deposit of \$40, which does not apply toward room and board fees, is payable before registration.	

### C. Room and Board Payments

Students may make the full Room and Board payment for the semester at the time of registration or may pay on a two-payment basis as follows:

- (a) 50% of the room and board payment due upon registration for classes.
- (b) second 50% of the room and board payment due on or before the Monday of the Sixth (6th) week of college scheduled classes.

## GRADUATION FEE

Every candidate for an Associate degree is required to pay a graduation fee of \$10; portions of this fee are used to cover the diploma and academic costume charges. Those completing certificate programs are not required to pay the \$10 fee. The graduation fee is to be paid when the student registers for his final semester.

## FLIGHT TRAINING FEES

### A. Basic Program Fees (Commercial License)

1. AT-80 Primary Flight and First Phase	
Commercial Pilot .....	\$617.00
2. AT-82 2nd Phase Commercial Pilot .....	622.00
3. AT-84 3rd Phase Commercial Pilot .....	690.00
 TOTAL .....	 \$1,829.00

### B. Optional Fees

1. AT-86 Instrument Pilot .....	\$506.00
2. AT-88 Multi-Engine Pilot .....	305.00
3. AT-89 Flight Instructor .....	339.00
4. AT-90a Air Transport Pilot Rating .....	\$5/hr
AT-90b Air Transport Pilot Rating .....	250.00
5. AT-92 Instrument Flight Instructor .....	265.00

## MISCELLANEOUS FEES

Out of State Application Fee .....	\$5.00
(This fee must accompany the Application for Admission)	
Late Registration .....	\$5.00
Late Payment of Fees .....	\$5.00
Change of Course fee .....	\$2.00
Late Final Examination Fee, in any course .....	\$3.00
(Only when permission of instructor is granted in advance)	
Credit by Examination (Per Semester Hour) .....	\$7.50
CLEP Subject Examination per test .....	\$15.00
Transcript fee — First Free, Each Additional .....	\$1.00
Returned check fee (for each returned) .....	\$10.00

All refunds and deposits due students for any reason will be forfeited unless written application is submitted on or before June 15 of the academic year in which they are due. The Governing Board reserves the right to revise tuition, fees, and other charges as may be required.

# REFUNDS

## Tuition

The following graduated scale for refunding of TUITION FEES for students who officially withdraw or are dismissed from the College applies to all students. The refund schedule is:

75% if withdrawal is prior to the seventh (7th) calendar day after college scheduled classes commence.

50% if withdrawal is between the eighth (8th) and fourteenth (14th) calendar day after college scheduled classes commence.

0% if withdrawal is the 15th day or thereafter.

## Registration Fee

Registration fee is non-refundable after the first week of classes. Fifty percent (50%) refund is allowed if withdrawal is completed prior to the end of the first (1st) week of classes.

## Room and Board

Students who officially withdraw from the Residence Halls before the completion of a 17-week semester will receive a refund of the unused portion of the payment as per the following schedule:

Withdrawal prior to Friday of:	Two-Payment Plan \$245.00	Full Semester Payment \$490.00
1st Week	117.00	362.00
2nd Week	95.00	340.00
3rd Week	72.00	317.00
4th Week	49.00	294.00
5th Week	27.00	272.00
6th Week	4.00	249.00
7th Week	-0-	226.00
8th Week	-0-	204.00
9th Week	-0-	181.00
10th Week	-0-	159.00
11th Week	-0-	136.00
12th Week	-0-	113.00
13th Week	-0-	91.00
14th Week	-0-	68.00
15th Week	-0-	45.00
16th Week	-0-	23.00
17th Week	-0-	-0-

## Aviation Students

(Airframe and Powerplant, and Professional Pilot) who withdraw from the dormitory prior to the conclusion of a term or semester will receive refunds based on the same ratio used in computing the refund schedule for regular students.

## Flight Fees

Any unused flight fees will be refunded in full.



Professional Pilot instructor with student at controls.

# STUDENT SERVICES

## Financial Aids

Cochise College offers a variety of financial aids to full-time students. Types of financial aids available are scholarships, grants-in-aid, educational opportunity grants, campus employment, Cochise College loans, Nursing Loans and Scholarships, College Work-Study, Federally Insured Student Loans, National Direct Loans, Law Enforcement Loans and Grants, and out-of-county and out-of-state tuition waivers. Eligibility for assistance is based on financial need, academic promise and leadership qualities.

## APPLICATION PROCEDURE

To apply for any type of financial aids, with the exception of LEEP Grants students must:

1. Complete the Family Financial Statement (FFS) of the American College Testing Program (ACT). Designate Cochise College as a recipient (Code 0089), send the original copy to ACT with the appropriate fee for processing. Allow three weeks for processing.
2. Send the work sheet of the FFS to the Cochise College Financial Aids Officer along with the Arizona Financial Aids Application. Only one set of applications need be submitted for all types of financial aid. Priority will be given to applications received by March 1. Applications for all types of financial aids will be accepted and evaluated after March 1 only insofar as available funds permit. These forms may be obtained from your local high school counselor, from the American College Testing Program, P.O. Box 767, Iowa City, Iowa 52240 or Cochise College.

**FINANCIAL AIDS COMMITTEE:** The committee is composed of eight members including the Financial Aids Officer, the Admissions Officer, a fiscal officer from the Office of Business Affairs, two faculty members, and two students appointed by the Student Senate. It is the function of this committee to screen applications and determine recipients of awards.

## SCHOLARSHIPS

Both new and returning full-time students are eligible for scholarships. Scholarships are awarded on March 1 to graduates of Cochise County high schools. Scholarships are made possible by the support of interested groups and individuals.

These criteria are used in determination of scholarship recipients:

1. Stipulations of the donor take precedence in all cases.
2. Academic achievement and financial need will be of importance in the awarding of all scholarships.

**SCHOLARSHIPS 1972-73**  
**(As of September 1, 1972)**

ARIZONA BANK — Douglas: Provides \$100 in a scholarship to this institution. The award is made each year to an entering freshman who is a graduate of Douglas High School.

BENSON WOMEN'S CLUB: An annual award, the exact amount to be determined by the donor. Recipients are selected by the Club.

BISBEE AMERICAN LEGION AUXILIARY UNIT 16: Annual award of \$100 to a Bisbee High School girl graduate. The recipient must be majoring in any of the following fields: (1) Nurse; (2) Teacher; (3) Business. She must be in the top one-third of her class and the daughter of a Legionnaire or Veteran.

MICHAEL BIALKOWSKI: An award made to the College with the amount of the scholarship to be determined by the donor. The recipient is selected by the Financial Aids Committee.

BISBEE BUSINESS & PROFESSIONAL WOMEN'S CLUB: The annual award of \$120 is made to a Bisbee High School student. The Financial Aids Committee chooses the recipient with the following requirements set by the donor: (1) Financial Need; (2) Scholarship.

BISBEE LIONESS CLUB: The annual amount for this award is determined by the donor. Criteria used for this award is: (1) Need; (2) Recipient must be from the Bisbee area. The recipient is selected by the Financial Aids Committee.

BISBEE ROTARY CLUB: An annual award with the amount varying each year. The recipient of this scholarship is determined by the Financial Aids Committee of Cochise College.

BISBEE WOMAN'S CLUB: Annual award is made for a Bisbee High School girl graduate. The recipient is selected by the Financial Aids Committee.

BUSHMASTERS CLUB OF BISBEE: A \$200 scholarship presented to Cochise College for Bisbee High School boy and girl graduates, \$100 each. The recipients are selected by the donor.

BUSHMASTERS CLUB OF DOUGLAS: Two scholarships in the amount of \$100 each are awarded annually. Recipients must be graduates of Douglas High School. Applicants names are proposed by the donor with final selection being made by the Cochise College Financial Aids Committee.

RAY DIAMOS BUSTAMANTE SCHOLARSHIP: A memorial scholarship in the amount of \$480 established by Mrs. A. D. Kerson in July of 1971. This award is made to needy students of any school with the decision of the recipients being made by the Financial Aids Committee. There are three scholarships.

CLUB ALBA: Two annual scholarships in the amount of \$200 each. The recipients are chosen by Club Alba.

COCHISE COLLEGE ACTIVITIES SCHOLARSHIP: This scholarship is based on the following criteria: (1) Faculty advisors will recommend recipients; (2) Scholarships will be awarded at the end of the semester for activity during the semester; (3) Students should apply with AAFA.

COCHISE COLLEGE FACULTY WOMEN'S ASSOCIATION: Two scholarships in the amount of \$160 each — one for a Liberal Arts Student, awarded to the recipients recommended by the Cochise College Faculty Women's Association. The Association chooses the recipients.

COCHISE COLLEGE PROFESSIONAL ASSOCIATION AWARDS: These three awards, two to outstanding sophomore graduates and one to an outstanding continuing freshman in the amount of \$150 each, are based on (1) scholastic ability, (2) contributions to Cochise College and (3) leadership.

COPPER CITY WOMEN'S CLUB: This is an annual scholarship of \$100 awarded to a Bisbee High School graduate. The recipient is selected by the Financial Needs Committee of Cochise College.

COPPER QUEEN MINER'S UNION Local No. 551: Three scholarships are awarded in the amount of \$300 each. The recipients are chosen by the donor.

DOUGLAS AMERICAN LEGION FRED HILBURN UNIT No. 11: This is an annual scholarship established for one boy and one girl graduate of Douglas High School. The amount of the award is \$200 for each student to cover a two-year college period. Recipients must receive highest graded score of achievement for Americanism.

DOUGLAS ART ASSOCIATION: A \$50 award is made annually to a Douglas High School graduate. The recipient must be an Art Student and is chosen by the Douglas Art Association Board of Directors from a list of qualified students submitted by the Financial Aids Officer.

DOUGLAS ELKS LODGE No. 955: The Douglas Elks Lodge awards six scholarships in the amount of \$160 each. The recipients are chosen by the donor.

DOUGLAS JUNIOR WOMEN'S CLUB: This is a scholarship that has been established in the amount of \$100. The recipient is selected by the Financial Aids Committee of Cochise College.

DOUGLAS KIWANIS: Two scholarships of \$160 each are awarded annually by the Douglas Kiwanis Club. The recipients are selected by the donor.

DOUGLAS LIONS CLUB: This is a scholarship of \$150 established in July of 1970. The following requirements are stipulated by the donor: (1) The recipient must be a Douglas High School graduate; (2) The recipient must be a Sophomore at Cochise College; (3) Equal value is placed on scholarship and need; (4) Selection of the recipient is made by the Financial Aids Committee.

DOUGLAS MUSIC CLUB: The recipients are chosen by the donor. This is an annual scholarship with the amount varying yearly.

DOUGLAS NOBLEMEN CLUB: A two-year scholarship in the amount of \$250. The recipient receives \$125 per year and is chosen by the donor.

DOUGLAS REPUBLICAN WOMEN SCHOLARSHIP: An annual scholarship awarded to a recipient selected by the donor. The amount of this scholarship varies yearly.

DOUGLAS TELEVISION COMPANY: Annual awards are made by the Douglas Television Company with the recipients being selected by the Douglas High School Counselors. These scholarships go to Douglas High School graduates.

FIRST NATIONAL BANK OF ARIZONA: Three annual scholarships are awarded by First National Bank. Requirements of this scholarship are: (1) Scholarship; (2) Need; (3) Recipients must be residents of Arizona; (4) Recipients must be majoring in Business; (5) Recipients should be second-year students.

GARDANIER SCHOLARSHIP: An annual scholarship awarded to worthy recipients. Chosen by the Financial Aids Committee of Cochise College.

MILDRED C. LEWIS MEMORIAL MUSIC SCHOLARSHIP: Recipient must be a Douglas High School graduate and a Music major. Funds for this scholarship are administered by the Douglas Music Club.

PAUL LIME PLANT: This is a yearly award made to Cochise College in the amount of \$200; two scholarships in the amount of \$100 each. Recipients of the scholarship are selected by the Financial Aids Committee of Cochise College.

NAACP Chapter, Sierra Vista: Scholarships awarded for the first time in August of 1972 are for \$500. The recipients are selected by the donor and each receives \$250 for the school year.

REACT STUDENT COUNCIL SCHOLARSHIP: Two scholarships in the amount of \$160 each to be awarded recipients chosen by REACT Student Council Members.

SAN JOSE COMMUNITY ASSOCIATION: Two scholarships in the amount of \$200 each. The recipients are chosen by the donor.

SIERRA VISTA LIONS CLUB: Two scholarships in the amount of \$150 each. The recipients are selected by the members of the Cochise College Financial Aids Committee.

SIERRA VISTA WOMEN'S CLUB: This is an annual scholarship awarded to a worthy recipient chosen by the Cochise College Financial Aids Committee. The following criteria is used in determining the recipient: (1) Buena High School graduate; (2) Need.

UNITED PRESBYTERIAN WOMEN: An award made by the United Presbyterian Church Women for two worthy Cochise College Students. The total of the award is \$250 for two scholarships of \$125 each.

UNITED STEELWORKERS OF AMERICA Local No. 6305: These are two two-year scholarships in the amount of \$200. The recipients are selected by the Financial Aids Committee of Cochise College with the following criteria being used: (1) Recipient must be a Douglas High School graduate; (2) Need; (3) Recipient must be the child of a member of the Steelworkers Union.

XI LAMBDA CHAPTER BETA SIGMA PHI: An annual scholarship in the amount of \$160. The recipient is chosen by the donor.

## GRANTS

Cochise College has a number of grants-in-aid available in the areas of athletics, art and music. Athletic grants are administered by the Coaching Staff. Recipients of music and art grants are selected by the Division of Humanities & Fine Arts and awards administered through the Financial Aids Officer.

EDUCATIONAL OPPORTUNITY GRANTS: Cochise College awards Federal Educational Opportunity Grants to a limited number of students who exhibit exceptional financial need.

Grants range from \$200 to \$1000. They are administered as part of a financial aids "package" and must be matched by scholarships, loans or earnings from campus employment.

## CAMPUS EMPLOYMENT

Jobs are available in various areas. Applications are screened by the Financial Aids Officer. Students are then referred to department heads for interviews and final selection. ALL students employed on campus must complete the financial aids application procedure, including step 1.

Cochise College participates in the government-sponsored College Work-study Program which is underwritten partially by Federal Funds. To participate in this program, the student must have demonstrated financial need.

## LOANS

**COCHISE COLLEGE LOANS:** The fund makes loans available to full-time students. Eligibility includes maintenance of a C average. These loans are on a short-term basis for emergency situations.

Beginning March 1, 1973, the FISL loan will be based on financial need. Students applying for this loan must complete the Arizona Application for Financial Aid and the ACT Family Financial statement.

**NATIONAL DEFENSE STUDENT LOANS:** An eligible undergraduate may borrow up to \$1000 each academic year (subject to available funds.) He need not begin repayment until nine months after he leaves college, nor does interest begin until then. Interest on the loan is 3% per year. Repayment may be extended over a 10-year period.

If a borrower becomes a full-time teacher in a public or other nonprofit elementary or secondary school or in an institution of higher education in the United States, up to 50% of the loan may be cancelled or "forgiven" at the rate of 10% for each year of teaching service. An additional 50% may be cancelled at the rate of 15% a year for such teaching service in designated "hardship" schools.

**LAW ENFORCEMENT LOANS AND GRANTS:** Loans are available to students enrolled in programs directly related to Law Enforcement. The loans bear 3% interest up to 10 years. The loans can be cancelled at the rate of 25% for each year of full-time employment in a public Law Enforcement agency.

Grants up to \$300 per semester may be made for full or part-time enrollment in Law Enforcement. To be eligible, beneficiaries must be full-time employees of a public Law Enforcement agency, and agree to remain employed for 2 years after completion of the course of study.

## TUITION WAIVERS

A limited number of tuition waivers of two types are available to out-of-county students:

1. Academic: Selected by the Admissions Committee.
2. Athletic: Selected by the Coaching Staff with the approval of the Admissions Committee.

## **Nursing Loans and Scholarships**

Loans are available to students enrolled in the Registered Nursing program. The student pays 3% interest on the loan after graduation. Scholarships are awarded to nursing students based on need and academic ability. Both loans and grants are awarded on a "need" basis.

## **Counseling**

Each entering student is assigned a counselor who will assist him in planning his educational program and in his general growth and adjustments to college life. Career choice and related course sequence is of particular concern. Careful attention is offered each student to aid him in implementing the program of his choice.

An educational planning interview is available to the individual student before enrollment in the college and during each succeeding semester. Through preparation and experience, counselors are able to offer guidance and counseling services which include a carefully-coordinated curriculum, advantageous registration procedures, advice on adjustments to college and assistance in the solution of many other personal problems.

## **Testing**

Although educational and vocational testing do not constitute the final answer, testing is useful in helping the student explore educational and vocational choices as well as helping the student gain personal insight into individual strength and abilities. To supplement the group and individual counseling, Cochise College has a testing program in the areas of academic ability, aptitude, achievement, skill, interest and personality. Students interested in testing should see a counselor in the Student Affairs Office.

## **Career Information Services**

Cochise College has developed an extensive occupational information system. This includes broad coverage of colleges and universities (both state and national) to which a student may transfer. The service also encompasses military, vocational and trade school. The information includes entrance requirements, majors offered, courses offered, expenses and general information about the institutions. Career information is available in the Student Affairs Office.

The main body of this service consists of job descriptions and related information for more than 36,000 occupations. Included are job descriptions, work performed, working conditions, training requirements, personal qualifications, method of entry, employment outlook, earnings, social and psychological factors and references for further information.

## Placement

The Career Placement Office, in the Student Affairs Office, will assist graduates in meeting contacts and arranging interviews with prospective employers in their fields of specialization. A Counselor in the Student Affairs Office will assist students in making application for admission to a four-year college or university if they have completed a transfer program.

## Health Services

The College offers a well-equipped campus health center directed by a full-time registered nurse who is under the supervision of a regularly licensed physician. In cases of illness or injury, students are referred to the local doctor of their choice for diagnosis and treatment. Consultation with the home-town family doctor of resident students is also afforded.

## Housing

Housing is an integral part of the student's total educational experience at Cochise College. The College considers it important that all students live in an atmosphere which stimulates academic achievement and provides the opportunity for meaningful experiences for all students.

The College maintains campus housing for resident students. Each residence hall is under the supervision of a qualified resident director who is assisted by trained student resident assistants. All resident students have the opportunity of participating in student government activities as provided by each residence hall council.

Each room is comfortably furnished and includes wall-to-wall carpeting, individual room air conditioning and heating controls, shower, lavatory, desk, chair, dressers, closet, and communication system with the main desk. In addition, each residence hall has a television lounge, study rooms, lounge areas, washing and ironing rooms and conference room.

## Housing Regulations

### General

All students are advised to live in college residence halls or in the home of parents, guardians, or relatives if they are commuting students.

All residence hall students are required to participate in the college food service facilities, and must sign a room and board contract. (If students are under 18, parent or guardian must also sign.) Three (3) meals are served each day except Sunday, when only two (2) meals are served.

A student must submit a room deposit of \$40.00 with the Application for Admission and be admitted to the College before a room assignment may be made.

Adjustments in room rates are not made in periods of over-assignment and the College may reassign rooms from time to time to insure the general welfare of students and the economical operation of residence halls.

The College holds no responsibility for the loss, theft, or damage to the personal effects of resident students.

The College reserves the right to:

- (a) deny or cancel room assignments in the interest of health, discipline, or academic standards.
- (b) cancel housing applications when all residence hall rooms have been assigned to earlier applicants.
- (c) hold residence hall students financially responsible for all losses and damage in assigned rooms.

Huachuca and Chiricahua Halls will be closed through Thanksgiving, Christmas, semester break and spring vacation. All students will be expected to leave unless special permission is obtained. Those enrolled in the Aviation programs will be expected to leave when their classes terminate for any of the breaks listed above.

## **Student Activities**

The College encourages participation in extra-curricular activities, campus organizations and intramural and intercollegiate athletics to promote leadership, student relationships and social development.

### **Student Union**

The "living room" of the campus offers an opportunity for students to socialize with fellow students, faculty and administration in an informal atmosphere. Meeting rooms, as well as comfortable lounges, a billiard room and various dining facilities augment the services to the student by the College. The offices of the Associated Student officers and the office of the Coordinator of Student Activities are located in this building.

The "dining room" services provided by the Cochise College Student Union include a "Rathskeller" -style snack bar, a private dining facility, and a large well-equipped dining room capable of seating 500. Resident students are offered a well-balanced menu featuring popular foods. Seasonal buffets, steak night and other unique monotony-breakers create a "second home" atmosphere in our Student Union.

## **Activities**

Most campus activities are the responsibility of student clubs and organizations. During the year a full schedule of activities is planned for the student body by the students.

Student activities include Apache Day, Athletic Events, Band, Choir, Billiards Tournaments, College Rodeo, Cultural Film Series, Drama Productions, Hawaiian Luau, Informal Dances, Intramural Sports, Parents Day, Public Events Series, Red and White Ball, Student Orientation Program, Las Vegas Night, Rock Concerts, Lectures, Picnics, Weekend Trips, Popular Film Series, Happenings.

### **Student Union Activities Board**

A subsidiary of the Associated Student Senate, the Student Union Activities Board performs important programming functions for the Student Union. The SUAB is made up of five members representing a cross-section of the student body. The chairman is elected by all-school election each spring. The SUAB schedules dances, selects Sunday night movies, plans open-forums, and mid-week "happenings". With the cooperation of faculty consultants, the SUAB administers the Public Events Series. This series includes cultural events such as films, art exhibits, in addition to appearance by popular personalities and groups. The SUAB also serves as liaison between the student body and our food service.

### **Food Committee**

A newly-formed committee of student, faculty and food service representatives works to produce the best in food quality, service and sanitation.

### **Organizations**

Student organizations attempt to appeal to and satisfy every student's needs and interests. Students of similar interests may get together and form a club in which fellow students can participate in a specialized activity.

Organizations include Alpha Eta Rho (Aviation), Baptist Student Union, Beta Phi Gamma (Journalism Honorary), Campus Crusade for Christ, Cheerleaders, Chess Club, Delta Epsilon (DECA), Drama Club, Epsilon Pi Epsilon (Police), Freshman Class Officers, Heliograph (Newspaper), International Club, Latter-day Saints Student Association, M.E.C.H.A., Radio Club, Spanish Club, Nurses Club, Residence Hall Councils, Red Key Club (Leadership Honorary), Rodeo Club, Songleaders, Sophomore Class Officers, Starchuters, Women's Recreation Association (WRA), YMCA, Phi Beta Lambda (Secretarial).

# ACADEMIC PROCEDURES AND POLICIES

## Academic Council

The enforcement, interpretation, and waiving of academic regulations are a responsibility of the Academic Council. Membership includes the Executive Dean, the Dean of Liberal Arts, the Dean of Occupational Education, the Dean of Students, appointed faculty members and two students appointed by the Student Senate. The president of the College is an ex-officio member. Student petitions for the waiver of academic regulations may be presented to the Academic Council through the student's counselor.

## Classification of Students

FRESHMEN:	Students with fewer than 28 passing units of college credit.
SOPHOMORES:	Students with 28 or more passing units of college credit.
FULL-TIME STUDENTS:	Students carrying 12 or more units during the semester.

## Grading System

Grades are earned in each course and the grade is 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

WF — WITHDREW FAILING Indicates withdrawal from the class after Friday of the ninth week with below a C in the course. A grade of WF is computed in the student's grade point average as an F, or failure.

W — WITHDREW Indicates a student has withdrawn from the course before Friday of the ninth week, or that he 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.

I — INCOMPLETE Indicates that for a justifiable reason (serious illness, etc.) the student failed to complete all requirements for the course. 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. The grade of I is not computed in the student's grade point average.

AU — AUDIT Courses may be taken for audit at the discretion of the course instructor. Registration and fee policies are the same as those for regular students; however, priority in registration will be given to those registering in a course for credit.

P — PASSING Passing in a pass-fail course.

XF — Failure in a pass-fail course.

## Grade Points

Semester grades are assigned grade points as follows:

A — 4 grade points per unit earned  
B — 3 grade points per unit earned  
C — 2 grade points per unit earned  
D — 1 grade point per unit earned  
F — 0 grade points per unit earned  
WF — 0 grade points per unit earned

Thus, a three-unit course with a grade of A would earn (3x4) 12 grade points.

The total grade points accumulated by a student are divided by the total of units attempted (exclude W and I grades) and the result is known as the student's cumulative grade point average, or GPA. Each time a course is taken both the units attempted and the grade points are included in computing the cumulative grade point average.

## Scholastic Honors

1. Any student who completes 12 or more units in one semester or phase and maintains a semester and cumulative GPA of 3.000 or better will be placed on Honors.
2. Any student who completes six through 11 units in one semester, or phase, maintains a semester and cumulative GPA of 3.000 or better, and has 18 or more completed units in residency will be placed on Honors.

## **Unit Load Limitations**

The maximum class load for a beginning freshman is 17 units, 19 units for second semester freshmen. Students wishing to exceed these limitations may petition the Academic Council.

Entering students with lower than "C" average will be limited to 15 units. This will include those coming from high school and those transferring from another college.

Continuing students who have: (a) one to ten minus points will be limited to 15 units; (b) eleven or more minus points will have academic requirements determined by Academic Council. These requirements will be stated in writing and the student must indicate his understanding of requirements and agree to comply.

## **Academic Probation**

All students who have attempted nine or more units at Cochise College and maintain a semester and a cumulative grade point average of 1.999 or lower will be placed on Academic Probation by the Academic Council.

## **Removal from Academic Probation**

A student will be returned to academic good standing when his cumulative grade point average is 2.000 or better.

## **Academic Suspension or Dismissal**

1. A student who has attempted nine or more units may be academically suspended from the College for one semester if his cumulative grade point average falls below 1.6 at the end of any semester.
2. A student while on Academic Probation may be academically suspended if his cumulative grade point average falls below 1.6.
3. All available factors having a bearing upon the academic record of the student will be evaluated by the Academic Council before academic suspension.
4. A student required to leave the College a second time for academic reasons will be dismissed.
5. Exceptions may be made by the Academic Council when evidence of significant academic improvement is made by the student during his period of academic probation; such students must continue to show improvement to remain in this special probationary status.

## **Transfer Students**

The following rules govern the admission of a student who has attended another college:

1. Courses for which the student has earned a grade of D or F will not be accepted for credit.
2. Students with a GPA below 2.000 may be admitted on academic probation.
3. Students academically dismissed from another college may not attend Cochise for one full semester after said dismissal.
4. In determining academic standing at Cochise College, the GPA of a transfer student is computed on the basis of units attempted at Cochise College only and will not include units and grade points earned at another college.

## **Credit by Examination**

A student enrolled for credit may establish credit by examination for a maximum of twelve units during his coursework at Cochise College but may challenge only one course for credit by examination per regular semester. A student may challenge only those courses which carry transfer credit, in which a written examination is the primary evaluative device, and in which he has not had advanced work in the same area. Credit by examination units will be computed into the regular course load with corresponding fee and unit-load limitations. The student should obtain the application for credit by examination from Student Affairs, then secure permission from department involved. A student may not petition to challenge a course a second time. Some departments may have additional qualifications which must be met before a course may be challenged.

## **College Level Examination**

Credit may be granted to students who have taken one or more tests of the College Level Examination Program developed by the College Entrance Examination Board. To receive credit on the General Examinations, a student must have a standard score of 500 or above. On the Subject Examinations, the student must have a standard score of 50 or better.

Students may earn up to thirty units of college credit by taking the CLEP. Any interested person may contact the Student Affairs Office.

## **U.S.A.F.I. and Other Military Service Schools**

Cochise College follows the credit recommendation of the American Council on Education for U.S.A.F.I. and Military Service Schools.

Credit for U.S.A.F.I. courses will be granted if the student received a satisfactory or above, or if the score is the 41st percentile or above.

**NOTE:** Colleges differ on their policies related to credit allowed for credit by examination. CLEP, U.S.A.F.I. and Military Service Schools. Credit granted by Cochise College does not obligate any other college or university nor guarantee its acceptance at another educational institution.

Students must be enrolled in at least one Cochise College course before credit will be granted for CLEP, U.S.A.F.I. or Military Service Courses. Credit allowed on any of these will not count toward the 15 resident hours required for an A.A. Degree from Cochise College.

## **Individual Studies**

Under "Course Offerings," and for most subjects, will be found a course description called Individual Studies. This course, No. 99 in all cases, is designed to accommodate particular needs of students capable of independent study. The number of units granted depends on the nature of the work undertaken. The transfer value depends also on the nature of the work and its acceptability by the institution to which the student transfers.

## **Predischarged Education Program (PREP)**

PREP, established by Public Law 91-219, provides a program to help servicemen who lack a high school diploma to attain a high school equivalency or to provide remedial and refresher courses preparatory to the pursuit of an educational or vocational training program at the college level. Servicemen may get further information about PREP by contacting the Fort Huachuca Education Center (538-2255) or the Cochise College Center in Sierra Vista (458-7110). PREP includes courses in English Fundamentals, Reading Fundamentals, Basic Communications, Math Fundamentals and Introduction to the Social Sciences. Guidance counseling and individual interest and achievement testing are also available to each student.

## **Grade Report**

Each student receives a grade report at completion of the semester. Final semester grades are recorded on the student's permanent record.

The grade reports of unmarried students under 18 years of age are mailed to parents or guardians. Grade reports of other students are mailed to their home address. A second copy of the grade report is also available to each student in the Student Services Office.

On about the fifth week of each semester, students who are currently making a D or and F in any course will receive a notice from the Registrar's Office.

## Final Examinations

Final examinations are given in most courses and students are personally responsible for taking all assigned final examinations as they are listed in the examination schedule. Final examinations normally will not be given in advance of the scheduled time.

## Change of Grade

A grade once reported to the Student Affairs Office may be changed only upon authorization of the faculty member issuing the grade.

## Repetition of Courses

1. If a student earns a grade of D or F, he may repeat the course and receive a new grade; however, the listing of the original grade remains as part of the permanent record. The units of the original course are not counted for graduation or in computing the cumulative point average.
2. A student need not repeat a course which he has failed unless it is a prerequisite for another course or is a course required for graduation or transfer.
3. Repetition of high school courses is permitted only if required by the College.
4. A student may not repeat a course in which he has received a grade of C or better.

## Change of Program

Students are expected to arrange their academic schedule carefully and maintain this schedule throughout the semester. Necessary program changes are to initiate with the student's counselor. The student must attend all classes in which he originally enrolled until the change has been authorized by his counselor, the professors involved, and the Student Affairs Office.

Courses may not be added to a program after the first week of classes. When a course is added after registration and during the first week of classes, a \$2 fee will be assessed for each course added unless it is determined that the change is due to administrative reason. Part-time evening students may register the first evening the class meets without paying a late-registration fee.

A student may drop a course at any time up to Friday of the ninth week of classes without penalty and the grade assigned will be W, withdrew. Courses dropped after Friday of the week following mid-semester examinations will receive a grade of W or WF (Withdrew Failing) at the discretion of the instructor.

## **Withdrawal from College**

A student who withdraws from the College before the end of the semester must consult with his counselor in order to obtain proper dismissal. A student will receive a WF in all courses if he does not officially withdraw.

## **Transcripts**

A transcript is a copy of the student's permanent record, which, upon the request of the student, is available to another college or university, or to a prospective employer.

Transcripts are forwarded by the Registrar's office only on the written request of the student. Transcripts to educational institutions will be sent directly by mail. Transcripts given directly to students are classified as "unofficial". The first transcript is issued without charge with additional transcripts being issued at \$1 each.

## **Transfer of Credit**

Students from approved institutions of higher education ordinarily will be given credit, hour for hour, for work done in those institutions insofar as it applies to the requirements of the curriculum pursued at Cochise College. A grade of D, earned at another institution, will not be accepted.

Students who have registered in other colleges and universities shall not disregard their records in such institutions in order to make application for admission solely on the basis of their high school records. Failure to report previous college attendance at the time of registration shall be sufficient cause for cancellation of the student's enrollment, or any credit earned, or both.

Students transferring from Cochise College to one of Arizona's State Universities should observe the following:

1. Follow carefully the curriculum guide developed by Cochise College in cooperation with the universities for your major area.
2. In general, the universities will accept up to 64 units of community college courses.
3. Developmental Courses carrying X, Y, or Z designation will not transfer.
4. Courses in which a student makes under a C are accepted for transfer only at the discretion of the universities and/or the particular college in the university.
5. The overall grade point average must be a two point (C) or better.
6. If particular problems concerning transfer are encountered, the student should contact the Executive Dean at Cochise College.

## **Attendance Policy**

Attendance policies at Cochise College are based on the belief that maximum benefits can accrue to the student only if his attendance is regular and his assignments are prepared promptly and adequately. A student is expected to be in attendance at all times in classes, laboratories, and orientation assemblies unless there is a compelling reason for absence. Professors set an attendance policy for each class and it is the student's responsibility to know and comply.

## **Registration for Physical Education**

The Board endorses the philosophy of required physical education. In instituting this policy, the following requirements are set forth:

1. A full-time student shall be enrolled in a physical education activity course each semester of attendance until he has acquired a minimum of two semester credits of physical education. Only one credit per semester may be earned to fulfill this requirement.
2. A student who is physically unqualified for participation in physical education as certified by a licensed physician (such certification by a physician shall be renewed each semester) shall be exempt from physical education activity. Physically handicapped students will enroll in a Personal Health course, or a special adaptive physical education course.
3. A student who is 24 years of age or older at the time of registration shall be exempt from physical education courses.
4. Honorably discharged servicemen with a minimum of two years of active duty, married men and women, and men and women who are heads of households are exempt from the requirement of two units of physical education.

## **Graduation Requirements**

Cochise College grants the degree of Associate in Arts and the Associate in Science.

### **Requirements for Graduation with the Associate Degree are:**

1. Completion, with a cumulative GPA of 2.0 (C) or better, of at least sixty passing units.
2. A minimum of fifteen units, with a grade average of 2.0 (C) or better, must be taken at Cochise College.
3. Registration at Cochise College (not necessarily full-time) when graduation requirements are completed except that a student who has met all

other requirements and has earned up to 56 units at Cochise may, within one year, transfer from another institution a maximum of 4 units to complete the degree requirements at Cochise College.

4. The General Education requirement at Cochise College is 26 hours distributed as follows:

**AREA 1:** A six-unit requirement from the following and related options  
English placement will be determined on the basis of placement test scores and high school record.

ENGL Y. Reading Fundamentals  
ENGL 1-2. Composition  
FNGL 4. Introduction to Literature  
ENGL 6. Critical Evaluative Reading  
ENGL 8. Written Communications and Reports  
JOUR 1. Communications  
SPAN 1a. Elementary Spanish  
SPAN 3a. Intermediate Spanish  
SPAN 75a. Intermediate Composition and Conversation  
SPCH 2. Fundamentals of Speech  
SPCH 10. Public Speaking  
SPCH 25. Argumentation and Debate  
SPCH 36. Oral Interpretation of Literature

**AREA 2:** A six-unit requirement from the following and related options  
Although several courses appear on both Area 1 and Area 2 lists, a specific course may be used only to fulfill requirements in one area

ART 1. Introduction to Art  
ART 3. Basic Design  
ART 6. Basic Drawing  
ART 7-8. Survey of World Art  
DRAMA 1. Acting  
ENGL 4. Intro to Literature  
ENGL 7. Creative Writing  
ENGL 20-21. British Literature  
ENGL 24.25. American Literature  
ENGL 26-27. World Literature  
HUM 50-51. Humanities  
MUS 1-2. Introduction to Music  
MUS 30. Keyboard Harmony  
MUS 32a-b. Music Theory  
Mus 50. Introduction to Jazz  
PHIL 11. Introduction to Philosophy  
PHIL 20. Philosophies of the East  
SPAN 75a-b. Intermediate Composition and Conversation  
SPAN 104a-b. Introduction to Spanish Literature

AREA 3: A six-unit requirement from the following and related options.

ANTH 1-2, Introduction to Anthropology  
ANTH 25-26, Cultural Anthropology  
ANTH 35-36, Introduction to Archaeology  
ANTH 85, Prehistoric Indians of the Southwest  
ANTH 86, Modern Indian Tribes of the Southwest  
BUS 9, Survey of American Business  
BUS 23, Personnel Psychology  
ECON 1-2 Principles of Economics  
GEOG 1, Physical Geography  
GEOG 2, Cultural Geography  
GEOG 5, Economic Geography  
HIST 1-2, History of the U.S. .  
HIST 4-5, History of Western Civilization  
HIST 15, Survey of the American West  
POL-SCI 2, American National Government  
POL-SCI 50, Introduction to International Relations  
POL-SCI 57, National and Arizona Constitution  
PSYC 1-2, Elementary Psychology  
PSYC 10, Introduction to Social Psychology  
PSYC 14, Adolescent Psychology  
SOC 1, Introduction to Sociology  
SOC 2, Social Problems  
P.S. 54, Psychology for Law Enforcement  
P.S. 56, Criminology

AREA 4: A six-unit requirement from the following and related options

AVIA 12, Applied Aero Math  
AVIA 14, Aero Physics  
BIOL 1a-b, General Biology  
BIOL 12, Foundations of Science: Biology  
BOT 1, General Botany  
BUS 1, Principles of Accounting  
BUS 4, Business Math  
BUS 19, Business Statistics  
CHEM 2a-b, General Chemistry  
CHEM 12, Foundations of Science: Chemistry  
D.T. 12, Technical Graphics I  
D.T. 20, Technical Graphics II  
E.T. 1, Introduction to Electronics  
E.T. 10, Math for Electronic Technicians  
GEOL 12, Foundations of Science: Geology  
GEOL 51, Physical Geology  
MATH 1X, Fundamentals of Math  
MATH 2X, Elementary Algebra

MATH 3X, Plane Geometry  
MATH 11, Intermediate Algebra  
MATH 20, College Algebra  
PHYS 2a-b, General Physics  
PHYS 3a, Introductory Physics w/Calculus  
PHYS 12, Foundations of Science: Physics  
ZOOL 1a-b, General Zoology  
ZOOL 20, Human Anatomy  
ZOOL 40, Mammalian Anatomy

#### PHYSICAL EDUCATION: A two-unit requirement

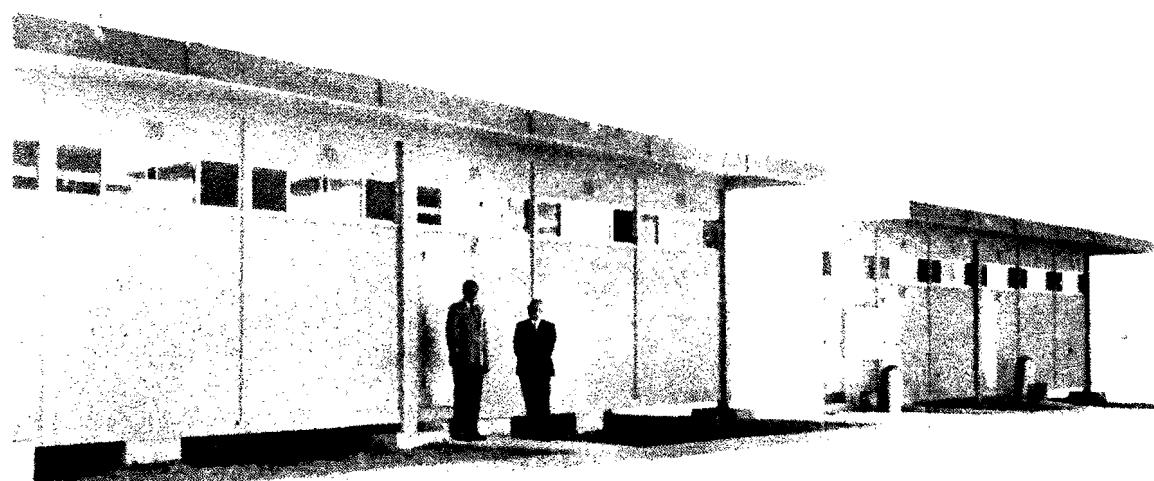
Students in occupational programs and students in pre-professional science programs whose General Education requirements are somewhat different should consult with their program advisors for appropriate requirements.

Students may be exempted from specific General Education requirements on the basis of advanced placement.

Students who intend to transfer should review general education requirements of universities they plan to attend with their counselors.

Students may complete the following graduation requirements in the Developmental Program:

Area 1	5 units
Area 3	3 units
Area 4	3 units



Cochise College  
Fort Huachuca-Sierra Visitor Center

# INSTRUCTIONAL PROGRAMS

## College-Parallel Programs

For the student who wishes to extend his education to include a bachelor's (four-year) degree, Cochise College offers the first two years of the four-year program. In addition he may remove any high school grade or subject deficiencies which are required for entrance to the four-year college or university of his choice.

Students who plan to transfer to Arizona universities, or to other colleges and universities, should consult the specific catalog with the aid of their counselors to determine lower division requirements of junior standing. Catalogs of major universities and colleges are available in the Library and the Student Affairs Office.

The student who plans to graduate from Cochise College and wishes to obtain junior standing in another college or university has four requirements to fulfill.

- (1) He must clear up any entrance deficiencies in grades or subject matter if the senior college to which he expects to transfer requires it;
- (2) He must fulfill the general requirements of the senior college which are prescribed for all students;
- (3) He must fulfill his own pre-major requirements, i.e., the lower division requirements for his upper division major;
- (4) He must earn a cumulative grade point average of 2.0 or better.

Under the provisions of the ROTC Vitalization Act of 1964, Community college men are now eligible immediately to enter the Advanced ROTC Program when they transfer to a four-year college or university. Information relative to this program may be secured from the Dean of Students.

## Occupational Programs

Occupational programs at Cochise College are intended for the student who wishes to gain employable skills.

Occupational programs in Middle Management, Law Enforcement, Associate Degree Nursing (RN), Practical Nursing, Nursing Assistant, Office Careers, Medical Secretarial Studies, Construction Trades, Service Station Operation and Management, Teacher Aides, Drafting Technology, Electronics, Airframe and Power Plant Technology and Professional Pilot Training are offered at Cochise. Each occupational program has been developed with the aid of business and industrial advisory committees to insure the student of quality instruction and to enhance his opportunities for successful employment. (Informa-

tion relating to additional occupational curricula may be secured through the Office of Admissions.)

Upon completion of the required curriculum, the student will receive an Associate degree or a certificate of completion. The College Placement Bureau will assist graduates in finding permanent full-time positions in fields of specialization.

Several four-year technical programs are offered at Arizona State University and Northern Arizona University. A large number of occupational programs at Cochise College will transfer into many of these university programs. For further information on specific transfer options, consult a counselor, Placement Bureau or the respective division chairman.

In addition to the established occupational programs listed above, the College will offer a variety of short-term, non-credit extension courses upon request of business, industry or other interested groups. Several one-year certificate programs are also offered.

Many of the curricula, outlined in the following pages, include general education courses intended to broaden the student's understanding of himself and his world. It is assumed that through such courses the student will develop a sense of personal and social responsibility and understanding appropriate to his vocation and community affairs.

**COOPERATIVE EDUCATION PROGRAM:** Cochise College students enrolled in any of the College's programs may be selected to participate in this program. This is a cooperative venture between the employer, the student and the College to provide part-time (or in some cases, full-time) job placement in training positions related to the student's career interest. The student's work is coordinated by college staff and the student will receive college credit for this job experience. This program is also adaptable for employed adults who are interested in gaining additional job skills for future advancement.

## **AVIATION TECHNOLOGY**

### **Aviation Administration:**

Graduates of this program will enter the aviation industry as mid-management trainees with airlines, in aircraft sales or in airport management. The programs include general education, business management and aviation courses of study. (Refer to Mid-Management Curriculum Guide).

### **Professional Pilot:**

Academic and technical studies combined with flight training qualify the student for positions requiring professional pilots. All phases of flight training are

available which will enable the student to complete the Airman Certification Requirements of the Federal Aviation Administration.

The Professional Pilot Program may be completed under one of the following options:

**OPTION I**

**Phase I (25 weeks)**

			<b>Units</b>
AT 80g-80f	Basic Flight		3-3
AT 82g-82f	Intermediate Flight		3-3
AT 84g-84f	Advanced Flight		3-3
	General Education		12
			<hr/>
	<b>TOTAL</b>		<b>30</b>

**Phase II (19 weeks)**

AT 86g-86f	Instrument Flight	option	3-3
	or		
AT 88g-88f	Multi-Engine	option	1-2
AT 89g-89f	Flight Instructor		3-2
	General Education		16
			<hr/>
	<b>TOTAL</b>		<b>30</b>

**OPTION II**

**Phase I (25 weeks)**

AT 80g-80f	Basic Flight		3-3
AT 82g-82f	Intermediate Flight		3-3
AT 84g-84f	Advanced Flight		3-3
	General Education		6
			<hr/>
	<b>TOTAL</b>		<b>24</b>

**Phase II (19 weeks)**

AT 86g-86f	Instrument Flight	option	3-3
	or		
AT 88g-88f	Multi-Engine	option	1-2
AT 89g-89f	Flight Instructor		3-2
	General Education		9
			<hr/>
	<b>TOTAL</b>		<b>23</b>

**ONE SEMESTER (16 weeks)**

General Education		13
		<hr/>
<b>TOTAL</b>		<b>13</b>

Both Option I and Option II lead to an Associate in Arts Degree. Students are urged to consult with the Aviation Department and Student Affairs before choosing Option I or Option II. A minimum of 24 credits from the Professional Pilot offerings are necessary for graduation. The Professional Pilot Program is a continuing operation and students may enter and start class when scheduled at any time during a single phase, at the discretion of the Aviation Department. The regular semester (16 weeks) must be taken during the regular Calendar Semester.

## Airframe & Powerplant Technician:

This curriculum, approved by the Federal Aviation Administration, consists of the theory and practical experience involved in disassembling, inspecting, overhauling and repairing aircraft powerplants and accessories including ignition, fuel systems, lubrication, propellers, powerplant overhaul and maintenance, jet engine and turbo-prop theory, instruments and aircraft systems in compliance with F.A.A. procedures. All courses offered in Aviation Maintenance will be completed during the fifty-week program. Sequencing will be determined by department, as well as entrance dates at discretion of Division.

		Cr.
AT 11	Aircraft Materials and Processes	4
AT 12	Applied Aero Math	3
AT 20	Basic Aircraft Powerplants	11
ENG 8	Written Communications and Reports	3
AT 21	Aircraft Propeller Systems	3
AT 14	Aerophysics	3
AT 30	Adv. Aircraft Powerplants	11
AT 42	Aircraft Elec. Systems	4
AT 15	Aeronautics Drafting	4
AT 40	Basic Airframe Structures	5
AT 50	Adv. Airframe Structures	6
AT 16	Theory of Flight and Instrumentation	4
AT 17	Shop Management Principles	3
AT 53	Hydraulic and Pneumatic Systems	5
AT 52	Aircraft Assembly, Rigging, and Inspection	7

76

## Middle Management

The Mid-Management program is designed to serve individuals having diverse occupational objectives. The primary objective of the program is to prepare students for full-time employment upon graduation from Cochise College. Participation in the program does not preclude the student from entering a four-year institution of higher learning. Career plans are often altered and not infrequently in a direction requiring further education. The Mid-Management student who does decide to continue his schooling will find that the majority of the course work will be accepted for transfer credits.

The Mid-Management program consists of three areas of concentration: General, Hotel-Motel, and Aviation Administration. The curriculum for each area consists of three parts: General Education, Area of Concentration, and the Mid-Management Core. The core and general education requirements are the same for each area.

Freshman Year	Total Hours	Sophomore Year	With Internship	Without Internship
Gen. Educ. Requirements	18	Gen. Educ. Requirements	9	9
Area of Concentration	6	Area of Concentration	3	15
Mid-Management Core:		Mid-Management Core:		
Princ. of Marketing	3	Prob. of Management	3	3
Princ. of Management	3	Seminar — Trends & Practices in Marketing & Management	3	3
		*Intern. in Coop. Educ.	12	0
	28			
			30	30

\* Internship in Cooperative Education (on-the-job training) has three options:

1. Full-time basis during the student's fourth semester.
2. Part-time basis during the student's school year. This is dependent upon student being placed locally in order that he or she may attend classes on campus at Cochise College.
3. Research Study — Students that are employed full-time may do a research study with the permission of the coop coordinator. Credit will be limited to 3 Credit Hours per each semester.
4. No Internship — this is dependent upon the student's background experience and placement of student in a suitable employment experience.

The Mid-Management courses can be designed to accommodate students who have specific occupational goals. Two such options are as follows:

#### HOTEL-MOTEL MANAGEMENT

Area of Concentration:

BUS 58	Hotel-Motel Management A series of correspondence courses from the Educational Institution of the American Hotel and Motel Association.
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#### AVIATION ADMINISTRATION

Area of Concentration

AT 80g	Basic Flight (ground)
AT 17	Shop Management Principles
DT 10	Mechanical Drawing
GEOG 5	Economic Geography
BUS 31	Business Law

## MIDDLE MANAGEMENT SPECIALIST PROGRAM (One Year):

First Semester	Total Hours	Second Semester	Total Hours
Mid-Management Core:		Mid-Management Core:	
Princ. of Marketing	3	Prob. of Management	3
Princ. of Management	3	Seminar — Trends & Practices	
Internship in Coop. Ed.	6	in Marketing & Management	3
*Seminar in Coop. Ed.	1	Internship in Coop. Ed.	6
	<hr/>	*Seminar in Coop. Ed.	1
	<hr/>		<hr/>
	12-13		12-13

\* A course from the core area may be substituted upon permission from the coordinator.

## Secretarial Studies

Recent advances in business have opened a variety of opportunities in office careers. Interesting secretarial positions are available in government, foreign service, transportation, television, manufacturing, banking, and professional areas.

In accordance with the recommendations of office administrators, the curriculum stresses mastery of office skills, English usage, and desirable personal traits.

In the program outlined, the student is advised to enter the skill classes which mark the present level of their proficiency in these fields. This career program is open to both men and women.

## FRESHMAN YEAR

General Education Requirements:	14 hrs
English Requirement (minimum of 6 hours of general education total)	
Secretarial Core:	18 hrs
Shorthand	(6)
Typewriting	(6)
Math for Business Machines	(3)
Accounting	(3)
<hr/>	<hr/>
Total hours	32 hrs

<b>SOPHOMORE YEAR</b>	<b>With 6 hrs Coop</b>	<b>With 12 hrs Coop</b>	<b>Without Coop</b>
General Education Requirements:	14 hrs	11 hrs	17 hrs
Business Administration Courses:	6 hrs	3 hrs	9 hrs
Shorthand (3)			
Personnel Psychology (3)			
Secretarial Studies Core:	6 hrs	6 hrs	6 hrs
Business Communications (3)			
College Secretarial Procedures (3)			
Internship in Coop Education	6 hrs	12 hrs	0 hrs
Total Hours	32 hrs	32 hrs	32 hrs

Internship (on-the-job) training may be taken on a full-time basis during the student's fourth semester (12 hours) or part-time during the student's third and/or fourth semester (6 hours per semester). It is suggested that students enrolling for only one semester choose the fourth semester.

## **BILINGUAL SECRETARY**

A demand for the properly educated bilingual secretary exists in Southern Arizona. Special courses have been developed which will provide interested students with secretarial skills in English and Spanish. Law offices, insurance and real estate firms, government agencies and other employers are continually searching for secretarial graduates with this type of background.

### **BILINGUAL SECRETARIAL PROGRAM**

**(One-year Certificate)**

<b>First Semester</b>	<b>Total Hours</b>
Intermediate Typing	3
Intermediate Shorthand	3
Spanish	3
English	3
Business Communications (Bilingual)	3
<b>Second Semester</b>	
Advanced Typing	3
Advanced Shorthand and Transcription	3
Spanish	3
English	3
Sec. Procedures (Bilingual)	3
	30

**BILINGUAL CLERICAL PROGRAM**  
**(One-year Certificate)**

	<b>Total Hours</b>
<b>First Semester</b>	
Intermediate Typing	3
Spanish	3
English	3
Business Communications (Bilingual)	3
Math for Business Machines	3
<b>Second Semester</b>	
Advanced Typing	3
Accounting	3
Spanish	3
English	3
Sec. Procedure (Bilingual)	3

**BILINGUAL SECRETARIAL PROGRAM**

	<b>Total Hours</b>
<b>First Semester</b>	
Intermediate Typing	3
Intermediate Shorthand	3
Spanish	3
English	3
General Electives	3
<b>Second Semester</b>	
Advanced Typing	3
Advanced Shorthand and Transcription	3
Spanish	3
English	3
General Electives	3

<b>Third Semester</b>	
Math for Business Machines or Accounting	3
Economics or Business Law	3
Spanish	3
Business Communications (Bilingual)	3
General Electives	3
<b>Fourth Semester</b>	
Sec. Procedures (Bilingual)	3
*Internship	6-12
General Electives	6

\* Internship or on-the-job training may be taken during the student's third or fourth semester. This is dependent upon the student being placed in a bilingual position.

## **Secretarial Studies**

### **Certificate Program**

For those who wish to spend a shorter time in preparation for a clerical or stenographic career, Cochise College offers a one-year secretarial studies certificate program. The student receives training in typewriting, English skills, chooses from a number of business areas and selects from a large number of other courses in acquiring a background for a beginning in the business office.

Required Core Program — Areas A and B required. Select one area from C, D, or E.

		Course	Cr.
A.	Bus 6	Elementary Typing	
	Bus 7	Intermediate Typing	6
	Bus 8	Advanced Typing	
B.	English 1		
	Bus Comm. or English 8		3
C.	Bus 4	Math for Business Machines	
	Bus 1a	Accounting	6
	Bus 1b	Accounting	
D.		or	
	Bus 10	Elementary Shorthand	
	Bus 11	Intermediate Shorthand	6
E.	Bus 12	Advanced Shorthand & Transcription	
	Bus 4	or	
	Bus 18	Math for Business Machines	6
	Bus 62	Accounting	
		Office Procedures	
		TOTAL UNITS in Core Program	15
Elective Program — Select units from other Business, English, or Economics courses not taken in Core Program			15
TOTAL Units in Program			30

## **ELECTRONICS TECHNOLOGY**

Electronics has made a significant contribution to the scientific age in which we live. The electronics technician plays a very important role in this exciting and rapidly growing industry.

The electronics program at Cochise College is designed for young men and women interested in becoming technicians and a part of the scientific team which will meet the demands and challenges of this interesting industry. The program provides the student with a thorough foundation in electronics, supported by a knowledge of mathematics, English and basic sciences. In modern

laboratories the student practices experimental techniques and develops technical competence with the use of test equipment and trainers that are designed to reinforce and apply the student's knowledge of theory. The objective of the total program is to produce a competent electronics technician who may work individually, or be capable of working and communicating directly with engineers and production personnel in his specialized work. He will be capable of satisfactorily performing work for his employer and of growing into positions of increasing responsibility. The electronics field provides excellent employment opportunities for students who are interested in working as a team with engineers in research and development, and installation and servicing of electrical and electronic devices.

Major employers are computer manufacturers, aerospace industries, nuclear installations, communication equipment manufacturers, automated industrial manufacturing companies and government organizations which are involved in many areas of the electronics field. There will also be increasing demands in the fields of oceanography, medical electronics, satellite communication, and education electronics.

## FRESHMAN YEAR

General Education Requirements		9 hrs
ET 10 Mathematics for Electronic Technicians		3 hrs
ET 20 Advanced Mathematics for Electronics		3 hrs
Other Technical Subjects:		
DT 31 Drafting for Electronics Technicians		3 hrs
Electronics Technology Core		15 hrs
ET 1 Introduction to Electronics	(6)	
ET 22 Semiconductors and Transistors	(4)	
ET 25 Electronic Circuits and Systems	(5)	
		33 hrs

## SOPHOMORE YEAR

General Education Requirements		11 hrs
Science Requirements (Minimum of 3 hrs of General Education total)		
Electronics Technology Core:		
ET 31 Pulse Circuits	(5)	
ET 33 Digital Circuits and Systems	(4)	
ET 43 Modern Electronic Devices	(4)	
ET 45 Communications Electronics I	(4)	
ET 47 Communications Electronics II	(4)	
		32 hrs

# HEALTH TECHNOLOGIES: NURSING

## **Nurse Assistant**

## **Practical Nurse**

## **Associate Degree Nurse**

Cochise College offers an open-ended curriculum in nursing that allows the student to travel at his own pace, get on and off the curriculum ladder as needed.

The nursing curriculum is a basic core in which the student can elect to take all or part. It is so devised that at the end of the first semester taking minimum requirements, the student is eligible to receive a certificate of proficiency as nurse assistant. At the end of a year and a six-week summer session, the student will have the necessary requirements to take State Board exams to become a practical nurse. At the end of two years, taking maximum requirements, the student is eligible to take State Board exams to become a Registered Nurse.

The Health Technology Program prepares young men and women to become nurse assistants, practical nurses or registered nurses. Students are prepared to render quality nursing care of various levels and in those functions commonly associated with bedside nursing. Technical nursing skills are taught in the classroom and related clinical areas such as hospitals, clinics, public health agencies, doctors' offices and nursery school. In addition, courses in general education are provided for all students in the program.

**Nurse Assistants** — Qualified nurse assistants are in constant need to function as members of the hospital or community health team. Primary functions of nurses assistants are to care for subacutely ill patients and to assist other members of the health team. A one-semester program.

**Practical Nurses** — Completion of requirements in this program will qualify men and women for state licensure as Licensed Practical Nurses. LPN's function at the hospital and in community health services at a skilled level under the direction of a Registered Nurse or Physician. Practical Nurses are in high demand to give basic nursing care and to assist other members of the health team. A two-semester, six-week summer program.

**Associate Degree Nurses** — Employment opportunity for these technical nurses is at a premium high. RN's function in the hospital or community at a cognitive level under the direction of a licensed physician. The primary function of this nurse is to give scientific and comprehensive health care and to assist other members of the health team. Completion of requirements for this program qualifies graduates to take state licensure exams for Registered Nurse status. A two-year program.

## **Nurse Assistant**

General Education Requirements		7
Human Anatomy and Physiology	(4)	
Communications	(3)	
HT 50   Introduction to Nursing (4 hrs lecture — 6 hrs lab)		6
HT 51a   Interpersonal Relationships		1
		14 units

## **Practical Nurse**

### **First Semester:**

General Education Requirements		7
Human Anatomy & Physiology	(4)	
Communications	(3)	
HT 50   Introduction to Nursing (4 hrs lecture & 6 hrs lab)		6
HT 51a   Interpersonal Relationships		1
		14 units

### **Second Semester:**

General Education Requirements		6
Communications or elective	(3)	
Math X or elective	(3)	
HT 55a   Patient Care in Mental & Physical Illness (6 hrs lecture & 12 hrs lab)		10
HT 51b   Interpersonal Relationships		1
CE 10   Co-operative Education		3
		20 units

### **Summer Session — 6 weeks**

HT 56   Patient Care in Mental & Physical Illness (10 hrs lecture & 15 hrs lab)		7
HT 52   Maternal & Infant Care (4 hrs lecture & 9 hrs lab)		3
HT 53   Professional-Vocational Relationships		2
		12 units

### **Electives:**

Anatomy and Physiology	Psychology
Microbiology	Fine Arts
Anthropology (cultural)	Spanish (Medical)

# Associate Degree Nurse

## FIRST SEMESTER

General Education Requirements		11
Human Anatomy and Physiology	(4)	
Communications	(3)	
Science Foundations (Chemistry, Physics, Nutrition, Math)	(4)	
HT 50 Introduction to Nursing (~ hrs lecture & 6 hrs lab)		6
IT 51a Interpersonal Relationships		1
		18 units

## SECOND SEMESTER

General Education Requirements		8
Human Anatomy and Physiology	(4)	
Microbiology (Elective)	(4)	
HT 55a Patient Care in Mental & Physical Illness (6 hrs lecture & 12 hrs lab)		10
IT 51b Interpersonal Relationships		1
		19 units

## THIRD SEMESTER

General Education Requirements		9
Cultural Anthropology	(3)	
Psychology	(3)	
Communications	(3)	
HT 55b Patient Care in Mental & Physical Illness (6 hrs lecture & 12 hrs lab)		10
HT 51c Interpersonal Relationships		1
		20 units

## OURTH SEMESTER

General Education Requirements		3
Fine Arts or Humanities	(3)	
IT 52 Maternal and Child Health Nursing (4 hrs lecture & 12 hrs lab)		11
HT 58 Nursing Trends		2
		16 units

## RECOMMENDED ELECTIVES

- Sociology
- Spanish
- Microbiology

NOTE: The following course work is integrated throughout the nursing program:

- Community and Mental Health Nursing
- Care of Children with Physical and Mental Illness
- Nutrition and Diet Therapy
- Pharmacology

## Medical Secretary

With continued expansion and improvement of health care for people of all ages, opportunities for medical secretaries are increasing.

The student who selects this career program will increase her basic secretarial competencies while studying medical terminology and medical transcription, anatomy, and general education subjects. The second year student will serve an internship in a hospital. Graduates may find employment as medical secretaries or related workers with insurance companies, hospitals, or medical clinics.

	<b>First Semester</b>	<b>Cr.</b>
Eng 1	English	3
Zoo 20a	Human Anatomy and Physiology	3
Bus 7	Intermediate Typing	3
PE 1	Physical Education	1
	Elective	6
		16

	<b>Second Semester</b>	<b>Cr.</b>
Spch 2	Speech	3
Zoo 20b	Human Anatomy and Physiology	3
PE 2	Physical Education	1
Bus 4	Business Math	
	or	
Bus 1a	Principals of Accounting	3
Bus 81	Medical Terminology	3
	Elective	3
		16

	<b>Third Semester</b>	<b>Cr.</b>
Bus 62	Office Procedures	3
Bus 23	Personnel Psychology	3
Soc 1	Introduction to Sociology	3
	or	
Psych 2	Elementary Psychology	3
Bus 83	Medical Transcription	3
	Fine Arts Elective	3
		15

	<b>Fourth Semester</b>	<b>Cr.</b>
Bus 95	Internship as Medical Secretary	16

Suggested Electives: Biology 20 and Business 11.

## Drafting Technology

The complexity of American industry and building construction requires that ideas, sketches and verbal instructions be neatly and accurately recorded in the form of drawings or documents. The curriculum in Drafting Technology is designed to prepare the student with a variety of skills and related knowledge necessary to perform as efficient draftsmen, capable of transferring ideas from engineers and designers to the finished product. Graduates may be employed by manufacturing industries, construction companies, mines, utilities or architectural planners. Preparation for this career includes technical drafting skills and a knowledge of mechanical components and devices, basic mathematics, materials and processes of industry.

### FRESHMAN YEAR

General Education Requirements	15 hrs
Mathematics Requirements (Minimum of 7 hours of General Education total)	
Other Technical Subjects:	
Math for Business Machines	3 hrs
Drafting Technology Core:	12 hrs
Technical Graphics I	(3)
Technical Graphics II	(3)
Spatial Relationships	(3)
Drafting for Electronics	(3)
	30 hrs

### SOPHOMORE YEAR

General Education Requirements	12 hrs
Other Technical Subjects	
Elective	3 hrs
Drafting Technology Core	15 hrs
Drafting for Manufacturing	(4)
Construction Drafting	(3)
Topographical Drafting	(3)
Individual Studies (optional)	(4)
	30 hrs

## POLICE SCIENCE

The magnitude and complexity of today's law enforcement and rehabilitation activities dictate the need for educated law enforcement personnel. The program at Cochise College is designed to prepare the student for the challenging and demanding opportunities which exist in public service and private industry. Failure to meet proper requirements may exclude persons from acceptance into the program.

Private industry offers positions in protective services, insurance investigation and personnel checking for employment and security. City, county, and state law enforcement agencies offer positions in patrol, identification, public relations, research, statistical analysis and juvenile programs. Women are finding careers in law enforcement challenging too, especially in youth and investigative work. The value of a college education cannot be over-emphasized for the alert young man or woman who plans to make a career in law enforcement.

## FRESHMAN YEAR

	General Education	16 hrs
PS 20	Introduction to Police Science	3 hrs
PS 22	Police Patrol Functions I	3 hrs
PS 24	Police Patrol Functions II	3 hrs
PS 27	Rules of Evidence	3 hrs
PS 30	Juvenile Procedures	3 hrs
		31 hrs

## SOPHOMORE YEAR

	General Education	3-6 hrs
PS 35	Physical Evidence — Photography	3 hrs
PS 32	Criminal Law I	3 hrs
PS 34	Criminal Law II	3 hrs
PS 36	Physical Evidence — Recognition, Collection, Preservation	3 hrs
PS 38	Criminal Investigation	3 hrs
PS 46	Police Community Relations	3 hrs
PS 49	Constitutional Law	3 hrs
PS 52	Accidents, Citations, Disorders	3 hrs
	Elective (or) General Education Course	3 hrs
		30 hrs

## TRADE, INDUSTRIAL EDUCATION

### General Mechanics — Automotive

A two-semester program of classroom theory and supporting automotive maintenance leading to a certificate of completion. Students will be placed in a cooperative education position with local businesses in the automotive trades where possible.

## **Construction — Carpentry Apprenticeship**

A five-semester sequence of classroom theory (approximately 550 hours) in conjunction with 5000 hours (minimum) of related on-the-job training through the college's cooperative education program. Students must be employed in the construction trades and recommended by their employer.

## **Service Station Operation and Management**

A two-semester program offering both classroom theory and on-the-job training leading to a certificate of completion. Emphasis is on sales, minor repairs, bookkeeping and supervisory techniques.

## **Teacher Aides**

A program for those students majoring in Education and for those seeking employment as teacher-aides. Enables the student to gain actual on-the-job experience through the college's cooperative education program. The teacher-aide trainees will be placed in local schools on a part-time basis. Credit is granted based on amount of actual experience gained.



Amahl and Night Visitors, Christmas 1972 production of Music Department and Drama Club.

# COURSE OFFERINGS

## Numbering of Courses

Courses designated 1 through 99 carry college level credit. The number to the left of the title of the course is the identification number of the course, viz. 1 General Biology.

Courses carrying a letter designates X, viz. IX Fundamental Mathematics and Y, viz. Y Reading Fundamentals may be used to complete graduation requirements toward the Associate Degree but may not be counted as transfer courses.

## Credit Value

The number to the right after the course title indicates the number of units of credits given for the semester. The number of lecture and laboratory hours per week is given in some cases at the conclusion of each course description. When laboratory work is not indicated, the course is considered to be a lecture; the word "lecture" does not imply that class discussion or participation is not an essential part of the course work.

## Prerequisites

The prerequisites as shown in the description for each course must be met before enrollment in the course is permitted. Prerequisites stated are intended to insure that the student will have sufficient preparation to assure a reasonable chance of success.

## Schedule of Classes

The College reserves the right to make additions or deletions to the list of course offerings during the year and to cancel those sections in which enrollment is not great enough to justify continuance. The Semester Schedule, published each Fall and Spring, is the official list of courses offered.

## Agriculture

5

**RANGE MANAGEMENT I**

**3 UNITS**

A study of the history of rangeland use, the influences of use on plant physiology and ecology, and the interrelationships and coordination of rangeland uses.

# Anthropology

1	THE ORIGIN AND ANTIQUITY OF MAN	3 UNITS
	<b>Prerequisite:</b> None.	
	A survey of human biological origins based upon paleontological and archaeological records including recent developments in physical anthropology.	
2	THE DEVELOPMENT OF CULTURE	3 UNITS
	<b>Prerequisite:</b> None.	
	An introduction to elements of cultural anthropology. The study of man's cultural progress from Lower Paleolithic to historic periods.	
10F	ARCHAEOLOGICAL SUMMER SESSION	6 UNITS
	<b>Prerequisite:</b> None.	
	Scientific excavation of a prehistoric Indian ruin, with emphasis on archaeological method, technique, and interpretation for the novice. Offered only during the summer. May be repeated for credit.	
25	SOCIETY AND CULTURE	3 UNITS
	<b>Prerequisite:</b> None.	
	Theoretical and practical insight into cultural forces which affect man's way of life including study of material culture, technology, social, political, economical systems, religion and language.	
26	NON-LITERATE SOCIETIES OF THE WORLD	3 UNITS
	<b>Prerequisite:</b> None.	
	The study of selected non-literate peoples and their way of life with major attention to such groups as tribes, chiefdoms, pastoral and peasant societies.	
35	INTRODUCTION TO ARCHAEOLOGY	3 UNITS
	<b>Prerequisite:</b> None.	
	A basic study of archaeological theory and technique. Field trips and laboratory work are important aspects of the course.	
36	ARCHAEOLOGICAL EXCAVATION	3 UNITS
	<b>Prerequisite:</b> None.	
	Practical experience through scientific excavation of an archaeological site. Sessions held in the field and laboratory.	
85	PREHISTORIC INDIANS OF THE SOUTHWEST	3 UNITS
	<b>Prerequisite:</b> None.	
	A survey of prehistoric Indian groups of the American Southwest including Northern Mexico. Field trips.	

86

**MODERN INDIANS OF THE SOUTHWEST**

**3 UNITS**

**Prerequisite: None.**

A survey of modern Indian tribes of Arizona, New Mexico and Northern Mexico. Field trips.

99

**INDIVIDUAL STUDIES**

**1-4 UNITS**

**Prerequisite: Approval of the Division Chairman and Professor.**

The student with demonstrated academic ability will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

## **Art**

1

**INTRODUCTION TO ART**

**3 UNITS**

**Prerequisite: None.**

Introduction of art elements and principles. A study of the developments of ideas, materials and techniques. Lecture 2 hours, lab 4 hours.

3

**BASIC DESIGN**

**3 UNITS**

**Prerequisite: None.**

A study of the basic elements of visual perception and organization. Lecture 2 hours, studio 4 hours.

6

**BASIC DRAWING**

**3 UNITS**

**Prerequisite: None.**

An introduction to representational drawing and expressive pictorial design. Lecture 2 hours, studio 4 hours.

7

**SURVEY OF WORLD ART**

**3 UNITS**

**Prerequisite: None.**

A study of the development of the art and architecture of western civilization from pre-historic times through the Gothic era. Lecture 3 hours.

8

**SURVEY OF WORLD ART**

**3 UNITS**

**Prerequisite: None.**

A continuation of Art 7 through the modern era. Lecture 3 hours.

30

**TWO DIMENSIONAL DESIGN**

**3 UNITS**

**Prerequisite: Art 3.**

An introduction of the theory and practice of two dimensional composition and design. Lecture 2 hours, studio 4 hours.

31	<b>THREE DIMENSIONAL DESIGN</b>	3 UNITS
	<b>Prerequisite:</b> Art 3.	
	An introduction to methods of sculpture, pottery, and jewelry. Lecture 2 hours, studio 4 hours.	
45	<b>BEGINNING FIGURE DRAWING</b>	3 UNITS
	<b>Prerequisite:</b> Art 6 or permission of professor.	
	A study of organic form, relationships, motion, and rhythm with secondary emphasis on the human figure in its environment. Studio 6 hours	
65	<b>BEGINNING COMMERCIAL DESIGN</b>	3 UNITS
	<b>Prerequisite:</b> Art 3.	
	The principles of commercial design and techniques of advertising layout, concentrating on practical applications. Lecture 2 hours, studio 4 hours.	
70	<b>CERAMICS</b>	3 UNITS
	<b>Prerequisite:</b> Art 3, Art 31, or permission of professor.	
	An introduction to clay and glaze techniques through hand-built, wheel-thrown, and sculptural techniques. Student involvement from raw material through fired product. 6 hours studio.	
80	<b>BEGINNING PAINTING</b>	3 UNITS
	<b>Prerequisite:</b> Art 3, Art 6 or permission of professor.	
	An introduction to the principles and techniques of oil, water color, casein, and fresco painting. Studio 6 hours.	
90	<b>SCULPTURE</b>	3 UNITS
	<b>Prerequisite:</b> Art 3, Art 31, or permission of professor.	
	An introduction to sculptural medias and techniques through wood, plaster, metal, plastic, clay, paper, and stone. Student involvement from raw material to finished product. 6 hours studio.	

## Aviation Technology

5	<b>AIRFRAME AND POWER PLANT UPGRADE</b>	
	A review of the total A & P program curriculum designed for the military aircraft mechanic who has 30 or more months experience. Upon completion of the 90 hours of lecture-discussion for 6 units of credit (3 units airframe, 3 units power plant) the student will be qualified to take FAA written, oral and practical examinations.	
11	<b>AIRCRAFT MATERIALS AND PROCESSES</b>	3 UNITS
	Exploration of the common as well as the newer and more sophisticated materials of the aviation industry to provide general	

foundation for practices and techniques which will be refined during the laboratory work involved in the Airframe and Powerplant Maintenance Program

12	<b>APPLIED AERO MATH</b>	<b>3 UNITS</b>
	A rapid review of high school algebra, plane geometry and arithmetic manipulations directly applicable to the Aviation Mechanic Technician's everyday problems	
14	<b>AERO PHYSICS</b>	<b>3 UNITS</b>
	A basic physics course with emphasis on electrical concepts, mechanical leverages, and pressure problems. discussion and problems realistically oriented toward the common problems of the Aviation Mechanic Technician.	
15	<b>AERONAUTICS DRAFTING</b>	<b>3 UNITS</b>
	A course in basic drafting skills with emphasis on blueprint interpretation and sketching with considerable practice in tracing electrical circuits on schematic drawings.	
16	<b>THEORY OF FLIGHT AND INSTRUMENTATION</b>	<b>4 UNITS</b>
	A study of the theory of flight as it related to the maintenance technician with particular emphasis on the associated instrumentation in an aircraft.	
17	<b>SHOP MANAGEMENT PRINCIPLES</b>	<b>3 UNITS</b>
	A study of fundamental concepts of management with emphasis on handling the common problems that arise with workers, including extensive examination of union grievances and solutions	
20	<b>BASIC AIRCRAFT POWERPLANTS</b>	<b>11 UNITS</b>
	An introductory course in powerplants of various kinds specialized for aircraft use, a foundation for AT-30.	
21	<b>AIRCRAFT PROPELLER SYSTEMS</b>	<b>3 UNITS</b>
	A study of the complex nature of sophisticated propeller systems used on modern aircraft, including propellers used with turbine power.	
30	<b>ADVANCED AIRCRAFT POWERPLANTS</b>	<b>11 UNITS</b>
	A continuation of AT-20 with emphasis on the more complex and modern powerplants, including in-depth study of radial engines and turbine engines (jets). Stress on trouble-shooting and actual repairs	
40	<b>BASIC AIRFRAME STRUCTURES</b>	<b>4 UNITS</b>
	An introductory course in actual structures and repair procedures applicable to same.	

42	<b>AIRCRAFT ELECTRICAL SYSTEMS</b>	<b>4 UNITS</b>
	A study of the entire electrical system, as well as the component parts, with trouble-shooting and repair as objectives.	
50	<b>ADVANCED AIRFRAME STRUCTURES</b>	<b>6 UNITS</b>
	A continuation of AT-40 with emphasis on more sophisticated repairs to larger aircraft primarily in the laboratory.	
52	<b>AIRCRAFT ASSEMBLY, RIGGING AND INSPECTION</b>	<b>7 UNITS</b>
	A course in which the student has the opportunity to perform final work and inspection on an aircraft prior to its return to service after receiving required maintenance, with stress on Federal Aviation Regulations.	
53	<b>HYDRAULIC AND PNEUMATIC SYSTEMS</b>	<b>5 UNITS</b>
	A study of aircraft hydraulic and pneumatic systems in depth with laboratory experience oriented toward trouble-shooting and repair.	
NOTE:	All courses offered in Aviation Maintenance will be completed during the fifty-week program. Sequencing will be determined by department.	
80g-80f	<b>BASIC FLIGHT</b>	<b>3-3 UNITS</b>
	The student will solo the aircraft, learn to navigate cross-country both by pilotage and radio, gain proficiency in all maneuvers required for a private license, learn to read and understand weather reports and learn the Federal Aviation Regulations pertaining to the private license.	
82g-82f	<b>INTERMEDIATE FLIGHT</b>	<b>3-3 UNITS</b>
	The student will become familiar with the commercial maneuvers and with radio navigation. The student will complete the cross-country hours required for a commercial license.	
84g-84f	<b>ADVANCED FLIGHT</b>	<b>3-3 UNITS</b>
	The student will become proficient in all the commercial maneuvers and in controlling the aircraft solely by reference to instruments. He will be introduced to instrument procedures. Commercial rating will be awarded upon successful completion of AT 84.	
86g-86f	<b>INSTRUMENT TRAINING</b>	<b>3-3 UNITS</b>
	The student will become proficient in ILS, VOR, DME, ADF and radar approaches and cross-country navigation by reference to instruments, and in air traffic control procedures and emergency procedures.	

88g-88f

**MULTI-ENGINE**

**1-2 UNITS**

The student will become proficient in piloting multi-engine aircraft, learning all the emergency procedures pertaining to a multi-engine airplane and the problems and advantages of operating a multi-engine aircraft.

89g-89f

**FLIGHT INSTRUCTOR**

**3-2 UNITS**

Development of teaching skills necessary to become a Certified Flight Instructor, including a working knowledge of pertinent F.A.R.'s gained by study in depth and repeated use.

90a-90b

**AIRLINE TRANSPORT RATING PROGRAM**

**9-6 UNITS**

Designed to meet minimum requirements for an Airline Transport Rating as set forth in Federal Aviation Regulations.

92g-92f

**INSTRUMENT FLIGHT INSTRUCTOR**

**1-2 UNITS**

**Prerequisites:** Successful completion of AT80, 82, 84, 86 and 89 or permission of the Chief Flight Instructor.

Development of teaching skills and knowledge required of a Certified Instrument Flight Instructor. Ground School 2 units, Flight 2 units.

99

**INDIVIDUAL STUDIES**

**1-4 UNITS**

**Prerequisite:** Approval of Division Chairman and Professor.

The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

## **Biology**

X

**DEVELOPMENTAL SCIENCE**

**3 UNITS**

**Prerequisite:** None.

A survey science course for the non-science oriented student. The main theme of aspects of human diseases includes areas of biology, chemistry, mathematics and physics with laboratory experiences using science equipment.

1

**GENERAL BIOLOGY**

**4 UNITS**

**Prerequisite:** None.

Principles and concepts of biology with reference to organization and function of cells, flowering plants, and man. Not open to majors in the Biological Sciences or the pre-professional curricula. Lecture 3 hours, Laboratory 3 hours.

2

**GENERAL BIOLOGY** 4 UNITS**Prerequisites: None**

Major principles of biology as illustrated by the animal and plant kingdoms, inheritance, speciation and ecology. Not open to majors in the Biological Sciences or the pre-professional curricula. Lecture 3 hours, Laboratory 3 hours.

20

**MICROBIOLOGY** 4 UNITS**Prerequisite: Completion of a semester of a college biological science.**

A survey of microbic life and fundamental biological peculiarities. The characteristics of bacteria as prototypes of all microorganisms; characteristics and importance of microorganisms other than bacteria; control of microorganisms; microorganisms and disease; and other aspects of applied microbiology. Lecture 3 hours, Laboratory 3 hours.

34

**GENERAL GENETICS** 3 UNITS**Prerequisite: Completion of a semester of a college biological science.**

Fundamental concepts and methods of analysis of plant and animal inheritance. Includes basic Mendelism, elementary probability, chromosome behavior, population and biochemical genetics. Laboratory 3 hours.

99

**INDIVIDUAL STUDIES** 1-4 UNITS**Prerequisite: Approval of the Division Chairman and Professor.**  
The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

## **BOTANY**

1

**GENERAL BOTANY** 4 UNITS**Prerequisite: Completion of a semester of high school or college chemistry or college biological science. Basic course in botany for students of biological science or agriculture.**

An introduction to the principles of botany as illustrated by flowering plants with emphasis on anatomy and physiology. Lecture 3 hours, Laboratory 3 hours.

99

**INDIVIDUAL STUDIES** 1-4 UNITS**Prerequisite: Approval of Division Chairman and Professor.**  
The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

# Business

1a-1b	<b>PRINCIPLES OF ACCOUNTING</b>	3-3 UNITS
	<b>Prerequisite:</b> 1a is a prerequisite for 1b.	
	The recording of transactions, the theory of debit and credit, the classification of accounts and the preparation and interpretation of financial statements as applied to sole proprietorships, partnerships, and corporations. Various questions, problems, and examinations will be given.	
2a-2b	<b>INTERMEDIATE ACCOUNTING</b>	3-3 UNITS
	<b>Prerequisite:</b> Business 1b.	
	Basic process and concepts of accounting: form and content of income statements and balance sheets, accounting for stockholder's equity, theory and problems involved in accounting assets and liabilities, income determination, analysis, and interpretation of financial statements.	
3	<b>MATH FOR BUSINESS MACHINES</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	Fundamentals of business mathematics and the ability to communicate with the "number language" of today's business world through use of business machines. Students advance at own rate, benefiting from increased speed and efficiency of learning, higher achievement levels, possible enrichment of their work, and an opportunity to gain complete and thorough mastery of subject matter and machines.	
4	<b>BUSINESS MATH (Programmed)</b>	3 UNITS
	<b>Prerequisite:</b> None	
	Fundamentals of business mathematics and the ability to communicate with the "number language" of today's business world. Student advances at own rate, benefiting from increased speed and efficiency of learning, higher achievement levels, possible enrichment of his work, and an opportunity to gain complete and thorough mastery of subject matter.	
5	<b>TYPING REVIEW</b>	1 UNIT
	<b>Prerequisite:</b> Prior typing experience.	
	Through individualized instruction, case problems, and production work, the student will review skills and mechanical functions of the typewriter, review letter format, and practice tabulation and manuscripts. Course begins at midterm.	

**ELEMENTARY TYPING** 3 UNITS**Prerequisite: None.**

Development of basic typewriting skills and techniques. Introduction to letter styles and forms, tabulations and manuscript writing through individual case problems and production projects. Students who have had typing in high school should enroll in Business 5 or 7.

**INTERMEDIATE TYPEWRITING** 3 UNITS**Prerequisite: Business 6, or high school typing, or ability to type 30 w.p.m., or permission of the professor.**

Improvement of typewriting skills including technique and accuracy in problem typing, as well as demonstrating an increase in words per minute in timed writings. Production work would include styles of business letters and business forms.

**ADVANCED TYPING** 3 UNITS**Prerequisite: Business 7, or ability to type 50 w.p.m. or permission of the professor.**

Additional typewriting skills in special, more demanding problems in business letters, manuscripts, tabulation, and various business forms. Introduction to actual business situations and demands faced by office typists. Additional speed will also be acquired.

**SURVEY OF AMERICAN BUSINESS** 3 UNITS**Prerequisite: None.**

Fundamental characteristics and functions of modern business, with emphasis on possible career opportunities.

**ELEMENTARY SHORTHAND** 3 UNITS**Prerequisite: Business 6 or equivalent, minimum grade of C in English, or permission of the professor.**

Emphasis on Gregg Shorthand theory. Students are expected to attain a minimum speed of 60 words a minute on familiar material. Students with high school shorthand should enroll in Business 11 or 13.

**INTERMEDIATE SHORTHAND** 3 UNITS**Prerequisite: One year of shorthand in high school, or Business 10 with a grade of C or better, or permission of the professor.**

Improvement of shorthand skills and development of dictation speed to a minimum of 80 words a minute on new material

**ADVANCED SHORTHAND AND TRANSCRIPTION** 3 UNITS**Prerequisite: Business 11, with grade of C or better, or two years of shorthand in high school, or permission of the professor.**

Emphasis on dictation, vocabulary development, and transcription. Students are expected to attain a minimum skill of 100 words a minute on new material.

13	<b>SHORTHAND REVIEW</b>	1 UNIT
	<b>Prerequisite:</b> Previous shorthand experience, ability to communicate in written English.	
	Reinforcement of previous ability to write shorthand, through the review of principles and theory of Gregg Shorthand. Students become acquainted with Diamond Jubilee Shorthand changes, and will be able to transcribe practiced material at 60 words a minute for admission to Business 11. Course begins at midterm.	
14	<b>BILINGUAL SHORTHAND — TYPING I</b>	3 UNITS
	<b>(English-Spanish)</b>	
	<b>Prerequisites.</b> Spanish proficiency at the second year level, or by permission of the instructor, and have finished or currently enrolled in Business 7 or 8 and/or 11 and 12. It is also recommended that the student have completed or be enrolled in Spanish 75a.	
	For students interested in qualifying as a bilingual (English-Spanish) stenographer. Dictation in both English and Spanish shorthand, to be transcribed into mailable copy in both English and Spanish. Minimum dictation rate will be 60 words a minute, typing rate of 40 words a minute, with transcription speed of 15 words a minute.	
15	<b>BILINGUAL SHORTHAND — TYPING II</b>	3 UNITS
	<b>(English-Spanish)</b>	
	<b>Prerequisite:</b> Business 14 and have finished or are currently enrolled in Spanish 75a or 75b.	
	Continuation of Business 14. Further development of speed and accuracy in typing forms, telegrams, reports, minutes of a meeting, and manuscript in Spanish.	
19	<b>BUSINESS STATISTICS</b>	3 UNITS
	<b>Prerequisite:</b> Business math or permission of the professor.	
	Descriptive statistics, averages, dispersion, elementary statistical inference, index numbering, time series, correlations, chi-square testing, point and interval estimation, with application on business and economic problems in workbook assignments and tests.	
21	<b>TAXATION PRINCIPLES AND PROCEDURES</b>	3 UNITS
	<b>Prerequisite:</b> Business 1a, 1b or permission of the professor.	
	Tax laws, accounting procedures and preparation of required United States and Arizona Income Tax Returns as they apply to individuals and business. This course is intended for those who do not	

anticipate specialization beyond the junior college level, but is of college level and may in some cases be accepted for transfer.

**PERSONNEL PSYCHOLOGY**

**3 UNITS**

**Prerequisite: None.**

Human behavior as it occurs in business and industry, psychological views as they pertain to selection, training, evaluation, promotion, and supervision of employees. Evaluation of consumer behavior through various methods in an attempt to better realize the effects of consumer research, advertising and selling.

**BUSINESS LAW**

**3 UNITS**

**Prerequisite: None.**

Basic legal principles involved in laws of contracts, negotiable instruments and property and business organizations to assist in meeting daily problems of management, ownership or employment in business.

**PRINCIPLES OF BANK OPERATIONS\***

**3 UNITS**

The fundamentals of bank functions in a descriptive fashion so that the beginning banker may view his chosen profession in a broad (and operational) perspective.

**REAL ESTATE**

**3 UNITS**

**Prerequisite: None.**

An instructional program specifically designed to meet the State Real Estate Board's educational requirements for the licensing of salesmen and the certification requirements of the National Association of Real Estate Boards.

**REAL ESTATE**

**3 UNITS**

**Prerequisite: Bus 40**

An instructional program specifically designed to meet the State Real Estate Board's educational requirements for the licensing of brokers and the certification requirements of the National Association of Real Estate Boards.

**INSURANCE**

**3 UNITS**

**Prerequisite: None.**

Principles and practices of insurance including coverage available, buying methods, procedures for settling claims, and analysis of contracts and forms purchased by the average individual.

\*A series of courses in banking is being developed in cooperation with the American Institute of Banking for the benefit of employees of area banking institutions.

52	<b>PRINCIPLES OF MANAGEMENT</b>	3 UNITS
	<b>Prerequisite:</b> Business 55 or permission of professor.	
	Principles involved in the management of organizations with emphasis on functions, processes, decision making and human relations at the first-line supervisory level.	
53	<b>SALESMANSHIP</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	Career opportunities in sales work, practical and psychological factors in selling, development of desirable sales personality, correct techniques in conducting sales campaigns. Members of the class will engage in practical sales demonstrations.	
55	<b>PRINCIPLES OF MARKETING</b>	3 UNITS
	<b>Prerequisite:</b> Approval of Mid-Management professor.	
	Principles involved in the distribution of goods and services from the producer to the ultimate consumer, including functions of wholesaling, retailing, direct selling, risk taking, storage, etc.	
57	<b>PROBLEMS OF MANAGEMENT</b>	3 UNITS
	<b>Prerequisite:</b> Business 55 and 52, or permission of professor.	
	Problems which first-line supervisors face in achieving the goals of their departments with emphasis on practical solutions to technical and human relations problems.	
58	<b>HOTEL-MOTEL MANAGEMENT</b>	2-21 UNITS
	<b>Prerequisite:</b> Permission of professor.	
	A series of correspondence courses from the Educational Institute of the American Hotel and Motel Association.	
59	<b>PRINCIPLES OF ADVERTISING</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	Role of advertising in distribution, including advertising media, advertising organizations, advertising copy, layout, and production.	
63	<b>COLLEGE SECRETARIAL PROCEDURES (Bilingual)</b>	3 UNITS
	A course for students who wish to become bilingual secretaries, conducted in Spanish and in English. The student will develop office vocabulary in both Spanish and English and will learn and experience general office procedures, including duties of office workers, staff members and management that will enable her to function as a member of an office staff.	
64	<b>COLLEGE SECRETARIAL PROCEDURES</b>	3 UNITS
	<b>Prerequisite:</b> Business 11 or permission of instructor.	
	Office organization and layout, workflow, procedures, standards, personnel policies, and supervision procedures through progressive job situations.	

65	OFFSET LITHOGRAPHY	3 UNITS
	<b>Prerequisite: Business 6 or equivalent.</b>	
	Development of skill in the operation of the offset machine, including preparation of direct image masters, presensitized offset plates, and artwork for the preparation of negatives.	
66	BUSINESS COMMUNICATIONS	3 UNITS
	<b>Prerequisites: English 1, Business 6</b>	
	Development of skills and techniques used in communicating facts and ideas in business.	
67	BUSINESS COMMUNICATIONS (Bilingual)	
	<b>Prerequisites: English 1, Business 6, and Spanish proficiency at the second year level, or by permission of the instructor.</b>	
	Emphasis is on the development of skills and techniques needed by a bilingual (Spanish-English) office worker to communicate facts and ideas in both languages.	
70	KEY PUNCH	1 UNIT
	<b>Prerequisite: Business 6, or high school typing, or permission of the professor.</b>	
	Development of key punch machine operation to job entry level skill.	
72	INTRODUCTION TO DATA PROCESSING	3 UNITS
	<b>Prerequisite: None.</b>	
	An overview of data processing, including the history and use of tabulating machines and electronic computers. Role of the punched card, functions of various machines, elementary procedural flow charts, and programs for electronic computers.	
73	INTRODUCTION TO COMPUTER PROGRAMMING	3 UNITS
	Exploration of various computer systems with emphasis on flow-charting, input and output of data and learning to develop arithmetic algorithms. A "hands on" approach.	
81	MEDICAL TERMINOLOGY	3 UNITS
	<b>Prerequisite: Zoology 20a or permission of the professor.</b>	
	Terms frequently encountered in medical records through the study of prefixes, suffixes, and the principles for combining the two to make compounds, followed by a comprehensive study of a list of diagnostic, operative symptomatological and drug terms and abbreviations.	
83	MEDICAL TRANSCRIPTION	3 UNITS
	<b>Prerequisites: Business 81, Zoology 20a and Zoology 20b, ability to type 50 wpm or permission of professor.</b>	

Transcribing histories, physicals, admission and discharge notes, and surgical dictation through extensive practice on transcription equipment.

93	<b>SEMINAR — TRENDS AND PRACTICES IN MARKETING AND MANAGEMENT</b>	3 UNITS
	<b>Prerequisite:</b> Business 52, 55, 57.	
	Designed to dovetail theory and practice. Problems encountered by students in their training stations will be discussed. To be taken concurrently with Internship in Marketing, Business 9 lab.	
95	<b>INTERNSHIP AS MEDICAL SECRETARY</b>	16 UNITS
	<b>Prerequisite:</b> Business 81, 83	
	Dovetailing theory and practice with experience in a medical record department or similar facility and discussion of problems encountered in the particular training station. Lecture-Laboratory experience.	
99	<b>INDIVIDUAL STUDIES</b>	1-4 UNITS
	<b>Prerequisite:</b> Approval of Division Chairman and the Professor.	
	Solving a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.	

## Chemistry

1	<b>INTRODUCTION TO CHEMISTRY</b>	4 UNITS
	<b>Prerequisite:</b> None.	
	Elements of general chemistry. Adapted to the needs of those students who have not had high school chemistry. Lecture 3 hours, Laboratory 3 hours.	
2a	<b>GENERAL CHEMISTRY</b>	4 UNITS
	<b>Prerequisites:</b> One year of high school chemistry or Chemistry 12 with a grade of 3 or better, or Math 11.	
	Introduction to the general principles of chemistry with emphasis upon quantitative relationships: properties of matter are related wherever possible to present concepts of atomic structure. Lecture 3 hours, Laboratory 3 hours.	
2b	<b>GENERAL CHEMISTRY</b>	4 UNITS
	<b>Prerequisite:</b> Chemistry 2a.	
	Continuation of Chemistry 2a with emphasis upon chemical equilibrium and a study of the elements through group relationships on periodic tables. Principles of ionic equilibrium are studied in the laboratory by means of experiments in acid-base equilibria, solubility products, and a modified scheme of qualitative analysis. Lecture 3 hours, Laboratory 3 hours.	

**10** **BASIC SCIENCE FOUNDATIONS** **4 UNITS****Prerequisite: None.**

A one-semester laboratory course dealing with a number of basic science concepts but emphasizing principles of inorganic and organic chemistry with biological applications. Adapted to the needs of students in Nursing.

**30** **QUANTITATIVE ANALYSIS** **4 UNITS****Prerequisites: Math 20 and Chemistry 2b.**

Introduction to quantitative chemical analysis involving the fundamentals of volumetric and gravimetric analysis. Careful manipulative technique, integrity and accuracy are stressed in the laboratory. Lecture 2 hours Laboratory 6 hours.

**40a-40b** **ORGANIC CHEMISTRY** **4-4 UNITS****Prerequisite: Chemistry 2b.**

General principles of organic chemistry; laboratory preparation of organic compounds. Lecture 3 hours, Laboratory 3 hours.

**29** **INDIVIDUAL STUDIES** **1-4 UNITS****Prerequisites: Approval of Division Chairman and professor.**

The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

## Cooperative Education

**10** **INTERNSHIP IN COOPERATIVE EDUCATION** **1-12 UNITS****Prerequisite: Prior approval of Cooperative Education Coordinator.**

Student should enroll concurrently in Coop Ed 20 unless excused by coordinator. Internship credit is provided in career areas, such as Manufacturing, Construction, Marketing, Business and Office, Teacher-Aide, Fine Arts and Humanities, Public Service, Social Work and Police Science.

**20** **SEMINAR IN COOPERATIVE EDUCATION** **1-4 UNITS****Prerequisite: Permission of Coop. Ed. Coordinator. Student should enroll concurrently in Coop. Ed. 10 unless excused by coordinator.**

Basic processes and concepts of the world of work: Job application, job responsibilities, human relations, career areas, and supervisory development will be discussed and explored.

Students generally deficient in the skills needed to succeed in college can learn these skills in the developmental program without penalizing their grade point averages at Cochise. If possible, the students will enroll in the program the spring before they enter Cochise. Placement will be based on recommendations of high school counselors, transcripts, and standardized test scores. No student, however, will enter the program without an interview with the teachers in the program. Students already enrolled at Cochise may enter the program on the recommendation of their teachers at Cochise.

The program will concentrate on the skills of reading, notetaking and studying, as well as the development of an understanding of the disciplines of humanities, social science, and science. Every teacher in the program will tutor and counsel the students. Student tutors will also help in the program.

## **DRAFTING TECHNOLOGY**

**12            TECHNICAL GRAPHICS I****3 UNITS**

**Prerequisite:** None.

Emphasis on orthographic and axonometric projection, geometric forms, graphs, basic dimensioning and elements of descriptive geometry. Two lectures, 3 hours laboratory.

**20            TECHNICAL GRAPHICS II****3 UNITS**

**Prerequisite:** DT 12

Study of auxiliary and oblique surfaces, intersections, detailing standards, fasteners, materials, and dimensioning. Elements of descriptive geometry are stressed. Two lectures, 3 hours laboratory.

**24            SPATIAL RELATIONSHIPS****3 UNITS**

**Prerequisite:** DT 12

Solutions of points, lines and planes, single-curved, double-curved and warped surfaces. Emphasis upon mechanical, civil and mining engineering applications. Two lectures, 3 hours laboratory.

**31            DRAFTING FOR ELECTRONICS****3 UNITS**

**Prerequisite:** DT 22 or concurrent with.

Concentration on the development skill in mechanical drafting as it applies to electricity and electronics. Demonstration of the ability to delineate electronic component symbols, block diagrams, wiring diagrams, schematics and miniaturized circuitry.

36	<b>DRAFTING FOR MANUFACTURING</b>	<b>4 UNITS</b>
	<b>Prerequisite:</b> DT 12	
	A study of fabrication procedures, machine elements, and the influence of manufacturing on design. Development of skills in precision dimensioning and the delineation of complex detail and assembly drawings. Two lectures, 6 hours laboratory.	
46	<b>CONSTRUCTION DRAFTING</b>	<b>4 UNITS</b>
	<b>Prerequisite:</b> DT 12.	
	Principles and applications of architectural and structural details as they apply to the residential and structural building industry. Two lectures, 6 hours laboratory.	
47	<b>STRUCTURAL DRAFTING</b>	<b>3 UNITS</b>
	<b>Prerequisite:</b> DT 22.	
	Delineation of problems related to structural steel, timber and concrete, and the applications of these materials to commercial buildings, bridges and other structures. Performance of basic calculations and drawings of details and construction plans.	
49	<b>TOPOGRAPHICAL DRAFTING</b>	<b>3 UNITS</b>
	<b>Prerequisite:</b> DT 22.	
	Interpretation and delineation of surveyor's notes, topographical map drawings, land parcels, sub-divisions, area calculations, profiling, contouring, sectioning and vertical curve analysis.	
99	<b>INDIVIDUAL STUDIES</b>	<b>1-4 UNITS</b>
	<b>Prerequisite:</b> Approval of Division Chairman and Professor.	
	The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.	

## Drama

1	<b>ACTING</b>	<b>3 UNITS</b>
	<b>Prerequisite:</b> None.	
	Introduction to theories of dramatic art and practice in acting. Lecture 3 hour.	
2	<b>ACTING</b>	<b>3 UNITS</b>
	<b>Prerequisite:</b> None.	
	Introduction to development of characterization in all types of dramatic literature and practice in acting. Lecture 3 hours.	

3	INTRODUCTION TO THEATER Prerequisite: None. A study of the history and tradition of western theater with analysis and discussion of representative drama from classical to contemporary theater. Lecture 3 hours.	3 UNITS
4	PRINCIPLES AND TECHNIQUES OF PLAY PRODUCTION Prerequisite: None. Introduction to the theory and practice of directing, set design, costuming, stage lighting, make-up and production organization. Lecture 3 hours.	3 UNITS
10	THEATER WORKSHOP Prerequisite: Permission of professor (audition). Actual participation in a college dramatic production either in an acting or a production role. No student will be awarded more than FOUR such credits.	1 UNIT

## Ecology

1	ECOLOGY Prerequisite: None. A general study of the environment, its pollution problems and possible solutions related to population and basic ecological principles, providing a heightened awareness of man's interdependence with nature and an informed, balanced understanding of the current trends of environmental degradation.	3 UNITS
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## Economics

1	PRINCIPLES OF ECONOMICS Prerequisite: None. A study of the fundamental characteristics of American capitalism, the basic areas of economics analysis, the economic theories and practical applications to current economic problems. Lecture 3 hours.	3 UNITS
2	PRINCIPLES OF ECONOMICS Prerequisite: Economics 1. A study of price theory for the product market models, agricultural economics, monopolistic competition, the distribution of income, labor economics, the problems of poverty and insecurity, the public sector and taxation, the international economy and gold and current balance of payments problems, the economics of change and comparative economics. Lecture 3 hours.	3 UNITS

99

INDIVIDUAL STUDIES

1-4 UNITS

Prerequisite: Approval of Division Chairman and Professor.  
The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

## Education

11

INTRODUCTION TO EDUCATION

3 UNITS

Prerequisite: Sophomore standing or permission of Professor.  
The significance of our educational institutions in the development of our society; an introduction to the cultural and social influences on educational theory and practice. Lecture 3 hours.

## Electronics Technology

1

INTRODUCTION TO ELECTRONICS

6 UNITS

Prerequisite: ET 10 or equivalent (ET 10 may be taken concurrently).

An introduction to basic electronic problems, coverage of Ohm's law, magnetism, network resistances, capacitances and inductances and analysis and testing of direct current and alternating current circuits.

10

MATHEMATICS FOR ELECTRONIC TECHNICIANS

3 UNITS

Prerequisite: One year of high school algebra or permission of Professor.

A review of arithmetic and the study of algebraic principles necessary to analyze electronic circuitry and provide a firm background for advanced studies. Fractions, decimals, fundamental concepts of algebra, scientific notation, the slide rule, graphing, the trigonometric functions, linear equations and the solution of DC electric currents presented.

20

ADVANCED MATHEMATICS FOR ELECTRONICS

3 UNITS

Prerequisite: ET 10 or equivalent.

Study of basic trigonometric relations applied to electronics with emphasis on network problems and analysis of alternating current circuits.

22

SEMICONDUCTORS AND TRANSISTORS

4 UNITS

Prerequisite: ET 1, ET 10.

A comprehensive study of semiconductor devices, stressing the ideal transistor approach. Study of semiconductor physics, the P-N junction diode, transistor configurations, bias arrangements, temperature effects and frequency response. Laboratory work,

closely associated with lectures, is designed to illustrate the principles of semiconductors.

25	<b>ELECTRONIC CIRCUITS AND SYSTEMS</b>	5 UNITS
	Prerequisite: ET 10, concurrent enrollment in ET 20 or equivalent.	
	Study of rectifier circuits and filters, audio, video and R.F. amplifiers. Use of theoretical concepts for practical application in these and oscillator, modulation and demodulation circuits.	
31	<b>PULSE CIRCUITS</b>	5 UNITS
	Prerequisite: ET 22.	
	A study of waveforms, networks, passive pulse circuitry, transistor switching, non-linear waveshaping, gating and multi-vibrators. The laboratory work illustrates the principles covered in the lectures.	
33	<b>DIGITAL CIRCUITS AND SYSTEMS</b>	4 UNITS
	Prerequisite: ET 31.	
	A study of logic and digital circuits common to computers and other areas of digital electronics. Emphasis on binary and octal numbers, codes, Boolean Algebra, logic circuits, counters, digital clocks, computing circuits and storage devices. Application of digital circuits and systems studied in the laboratory.	
40a	<b>RADIO COMMUNICATIONS</b>	3 UNITS
	Prerequisite: None.	
	Study and analysis of international and U.S. laws and FCC rules and regulations required to obtain a 3rd class FCC license. Typical questions will be studied and analyzed to insure clear understanding of the laws and their background. The student will be introduced to the basic technical knowledge required to further his career and obtain a 2nd class FCC license.	
40b	<b>RADIO COMMUNICATIONS</b>	3 UNITS
	Prerequisite: Background in basic electronics or ET 40a.	
	Study and analysis of requirements to obtain a second class FCC radio telephone license. Theory and typical questions will be studied to prepare students for the second class FCC radio-telephone examination.	
43	<b>MODERN ELECTRONIC DEVICES</b>	4 UNITS
	Prerequisite: ET 22.	
	A study of the characteristics of operational amplifiers, applications, and analysis of practical op amp circuits, photoconductive and photovoltaic devices, unijunction transistors, silicon-controlled rectifiers, and selected material covering other electronic devices.	

45

**COMMUNICATION ELECTRONICS I** 4 UNITS

**Prerequisite:** ET20 and ET 22 (ET 20 may be taken concurrently).

Resonant circuits, coupled circuits, voltage and power amplifiers and oscillators will be studied and analyzed in this course. Stress on practical application and problem solving.

47

**COMMUNICATION ELECTRONICS II** 4 UNITS

**Prerequisite:** ET 45.

A continuation of Communication Electronics I, including AM receivers, frequency modulation, transmission lines, antennas and propagation. In the laboratory, emphasis on the use of electronic test equipment in the analysis and adjustment of receivers.

60

**ACTIVE CIRCUITS** 4 UNITS

**Prerequisite:** *Permission of Instructor.*

Analysis and design of linear active circuits with emphasis on solid-state devices and circuits. Starting with a background of linear circuits, solid state components will be described in terms of characteristic curves. The h-parameter and hybrid pi model will be developed and used extensively. Small signal and large signal uncompensated amplifiers will be studied.

62

**WAVE GENERATION AND SHAPING** 3 UNITS

**Prerequisite:** *Permission of Instructor.*

Passive and active devices and circuit configuration used for generation and processing of pulse, digital, and switching waveforms will be studied. Techniques and analysis of wave shaping circuits, logic gates, timing and sweep circuits, memory elements, and oscillators will be emphasized.

This course will familiarize the student with circuitry and signals used extensively in computers, control systems, digital instrumentation, pulse communications, radar, telemetry, television, and in many areas of experimental research.

## **English**

X

**ENGLISH FUNDAMENTALS** 3 UNITS

An intensive review of grammar, spelling, vocabulary, and other fundamentals, with emphasis on writing paragraphs and short themes. Cannot be transferred to a four-year institution. Lecture 3 hours.

1X,2X, 3X,4X	CONVERSATIONAL ENGLISH	3-3-3-3-UNITS
	Prerequisites: A desire to speak English clearly. Some proficiency in reading English is helpful.	
	The class provides text and explanation; the language laboratory offers individual practice, recording and tutoring. Class recitation is individual and in concert according to its level of conversational proficiency. The language laboratory provides tape recordings of the text material, records of selected portions of the text, and tapecards which allow immediate recording, listening, and correcting of pronunciation. English 1X and 2X are NOT creditable toward AA degree or transferable. English 3X and 4X ARE creditable toward AA degree but are not transferable.	
Y	READING FUNDAMENTALS	2-3 UNITS
	Prerequisites: None.	
	Development of optimum reading efficiency through viewing timed Tachomatic films, taking timed comprehension checks on prose selections, reviewing phonics, syllabication, roots and affixes and using both dictionary and reference sources. College reading rates, comprehension, and vocabulary tested weekly in addition to Nelson-Denney evaluation.	
Z	BASIC COMMUNICATIONS	3 UNITS
	An introduction to verbal and non-verbal systems of communication: elementary speech, TV, radio, film, art, photography. Not transferrable to a 4-year institution.	
2Y	INDIVIDUALIZED READING	2 UNITS
	A programmed second semester of reading for students falling below the 51 percentile on the Nelson-Denny reading test, particularly bilingual or foreign students. Emphasis will be placed on growth of college vocabulary, reading rate above 300 wpm and advanced comprehension skills needed for college textbooks. Emphasis will be placed on individualized self-study in the LRC, in addition to reading lab work.	
1	COMPOSITION	3 UNITS
	Prerequisite: Placement by Communications Division. The student may also be required to take Reading Y, based on placement scores.	
	The student will write 5000 words, repeatedly practicing mechanical and organizational skills. He will also participate in class discussions and take quizzes on reading assignments.	
22	COMPOSITION	3 UNITS
	Prerequisites: English 1. The student may also be required to take English 6.	

The student will discuss current social problems in class and use these topics as a basis for writing 5000 words. He will exhibit argumentative, persuasive and research skills in or to carry an idea to its conclusion and account for possible results.

**3 ADVANCED COMPOSITION 3 UNITS**

**Prerequisite: English 2.**

Critical and evaluative writing and analysis of various literary genre: drama, poetry, short story and the novel. Credit for English 4 will not be granted if the student has taken English 3.

**4 INTRODUCTION TO LITERATURE 3 UNITS**

**Prerequisite: English 2 or permission of the instructor.**

A study of literary genre: drama, poetry, fiction, criticism. Emphasis on writing about literature. The student will not receive credit for English 4 if he has taken English 3.

**5 ENGLISH FOR BILINGUAL AND FOREIGN STUDENTS 3 UNITS**

**Prerequisite: Permission of instructor.**

An intensive study of grammar, vocabulary and principles of expository writing for students whose native language is not English.

**6 CRITICAL EVALUATIVE READING 2 UNITS**

**Prerequisites: 40th percentile on the placement test.**

Exercises in reading as an analytical, interpretive and evaluative process requiring the reader to make rational judgments about both the content and style of writing based upon valid and appropriate criteria. The emphasis of the course is upon non-fiction, magazines and newspapers wherein accurate word perception and skillful interpretation of language are important. Student recognition of satire, irony, propaganda devices, and author's purpose is stressed as well as the formulation of accurate inferences, generalizations, assumptions and conclusions.

**7 CREATIVE WRITING 3 UNITS**

**Prerequisites: English 1 and permission of professor.**

A three hour lecture and workshop in creative writing with emphasis on composition of poetry, short story, essay and description.

**8 WRITTEN COMMUNICATIONS AND REPORTS 3 UNITS**

**Prerequisites: Counselor placement; Airframe and Powerplant students only.**

Development of the skills of effective written communication, with emphasis on the organization of factual materials. Special attention to the vocabulary used in the A & P program.

9	<b>WRITTEN COMMUNICATIONS AND REPORTS</b>  (Police Science Students Only)	3 UNITS
	Prerequisites: 5 units of English (1 and Reading Y or English 1 and 2). One year of practice in the organization and mechanics of written communications and one year of courses in police science.	
	Concentrated practice in the form of police reports, including vocabulary study and exact observation of cases.	
10	<b>WRITTEN COMMUNICATIONS</b>  (Nursing Students only)	3 UNITS
	Prerequisite: None.	
	Development of optimum reading efficiency in the areas required by Associate Degree Nursing students. Intensive study of roots and vocabulary used in the health technologies. The development of study skills will be adapted to particular courses in the ADN program.	
11	<b>GRAMMAR, USAGE, AND PUNCTUATION</b>	3 UNITS
	A general review of modern English punctuation, grammatical, structure, diction, and modern American English usage. Lecture 3 hours.	
15a-15b	<b>THE STUDY OF ENGLISH WORDS</b>	2-2 UNITS
	Designed to assist the student to increase his command of modern English. Emphasis is primarily on words defined from Latin (15a) and Greek (15b).	
	Etymological meanings and modern meaning will be considered along with the semantic and phonetic changes involved. 15a is not prerequisite to 15b.	
20	<b>BRITISH LITERATURE</b>	3 UNITS
	Prerequisites: Six units of freshman English or permission of professor.	
	The student will discuss major themes in English literature, examine the literary genres, and use basic critical skills to evaluate literature.	
21	<b>BRITISH LITERATURE</b>	3 UNITS
	Prerequisite: Six units of freshman English or permission of professor.	
	The student will discuss major themes in English literature, examine the literary genres, and use basic critical skills to evaluate literature. Different works of literature are used in English 20 and 21. English 20 is not a prerequisite for English 21.	

22	INTRODUCTION TO SHAKESPEARE	3 UNITS
	<b>Prerequisites:</b> 6 units of freshman English.	
	An introduction to the major comedies, histories and tragedies of Shakespeare. Taught spring semester only.	
24	AMERICAN LITERATURE	3 UNITS
	<b>Prerequisites:</b> Six units of freshman English or professor's permission.	
	A critical study of selected study of selected prose and poetry in America from the Colonial Period to 1860.	
25	AMERICAN LITERATURE	3 UNITS
	<b>Prerequisite:</b> Six units of freshman English or professor's permission.	
	A critical study of selected American prose and poetry from 1860 to the present. English 24 is not a prerequisite to English 25.	
26	WORLD LITERATURE	3 UNITS
	<b>Prerequisite:</b> Six units of freshman English or permission of professor.	
	A study of some of the master works of literature through the Renaissance, including selections by Homer, the Greek tragic writers, Virgil, Dante, Rabelais, Cervantes, and Shakespeare.	
27	WORLD LITERATURE	3 UNITS
	<b>Prerequisite:</b> Six units of freshman English or permission of professor.	
	A study of eight major literary works from the Renaissance to the present, including selections of Voltaire, Goethe, Stendahl, Dickens, Dostoevsky, Turgenev, Flaubert, and Mann. English 26 is not a prerequisite to English 27.	
99	INDIVIDUAL STUDIES	1-4 UNITS
	<b>Prerequisite:</b> Approval of Division Chairman and professor.	
	The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.	

## French

1a-1b	ELEMENTARY FRENCH	3-3 UNITS
	<b>Prerequisite:</b> 1a is a prerequisite for 1b.	
	A course for beginning students with stress on conversation, comprehension of the spoken language, pronunciation, grammar, reading skills and composition.	

# Geography

1	<b>PHYSICAL GEOGRAPHY</b>	3 UNITS
	<b>Prerequisite: None.</b>	
	An introduction to the various features of the earth's physical environment in which man lives, consisting of a study that includes the origin and development of landforms, the composition of the earth's crust, weather, climate, vegetation, soils, and the mineral resources used by a.	
2	<b>CULTURAL GEOGRAPHY</b>	3 UNITS
	<b>Prerequisite: None.</b>	
	A study of the culture regions of the world surveying the important world geographical characteristics, culture, and problems of the world's major regions.	
5	<b>ECONOMIC GEOGRAPHY</b>	3 UNITS
	<b>Prerequisite: None.</b>	
	A study of the world's economies: subsistence economic activities, commercial gathering of animals and plants, commercial bioculture, mining, manufacturing, transportation and trade, and tertiary economic activities. This course centers around these basic economies and their relationship to the natural resources of the areas involved, and the relationship of the physical features — climate, soil, vegetation, and topography — to carrying out these activities.	
11	<b>GEOGRAPHY OF MEXICO AND CENTRAL AMERICA</b>	3 UNITS
	<b>Prerequisite: None.</b>	
	An introductory study of the culture, environment, and economic activities of Mexico, the Central American Republics and the Caribbean Islands.	
12	<b>GEOGRAPHY OF SOUTH AMERICA</b>	3 UNITS
	<b>Prerequisite: None.</b>	
	An introduction to the culture and economic activities of the peoples and nations of South America; with emphasis on the physical patterns, urban growth, industry, agriculture and mineral resources.	
99	<b>INDIVIDUAL STUDIES</b>	1-4 UNITS
	<b>Prerequisites: Approval of the Division Chairman and professor.</b>	
	The student with demonstrated academic ability, will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.	

## **Geology**

12	<b>INTRODUCTION TO GEOLOGY</b>	4 UNITS
	<b>Prerequisite:</b> None.	
	Current theories on earth processes, the applications of these processes to understanding man's physical environment, and the problems that remain to be solved. Lecture 3 hours, Laboratory 3 hours.	
51	<b>PHYSICAL GEOLOGY</b>	4 UNITS
	<b>Prerequisite:</b> None.	
	Principles of physical geology for students who plan to major in geology, hydrology, engineering, and agriculture. Lecture 3 hours, Laboratory 3 hours.	
99	<b>INDIVIDUAL STUDIES</b>	1-4 UNITS
	<b>Prerequisites:</b> Approval of Division Chairman and professor.	
	The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit,	

## **German**

1a-1b	<b>ELEMENTARY GERMAN</b>	3 UNITS
	<b>Prerequisite:</b> 1a is a prerequisite for 1b.	
	A study of grammar, reading skills, comprehension of the spoken language, pronunciation, composition, and conversation for those students with no previous training in German or with limited experience in the language.	

## **Group Dynamics**

	<b>GROUP DYNAMICS</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Development of self-understanding through group interaction and testing under the direction of a member of the counseling staff.	

## **Health**

2	<b>PERSONAL HEALTH</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	A survey of body functions in health and disease; common diseases and their early symptoms, consideration of personal, physical and mental health; effect of exercise and fatigue, selection of proper foods; marriage and parenthood.	

70	<b>FIRST AID AND SAFETY</b>	2 UNITS
	<b>Prerequisite:</b> None. The standard and advanced Red Cross course in first aid with emphasis on practical application of theory in bandaging, litter bearing, artificial respiration and other types of emergency care in case of sudden accident or illness.	

71	<b>SCHOOL AND COMMUNITY HEALTH</b>	3 UNITS
	<b>Prerequisite:</b> Sophomore standing or permission of professor A study of the basic plan of the school health program: health services, health instruction, and healthful school environment. Analysis of the role of the teacher in relation to the school health program and the community health program. Taught spring semester only.	

## Health Technologies

HT 50	<b>INTRODUCTION TO NURSING</b>	6 UNITS
	<b>Prerequisite:</b> Admission to the Nursing program. An introduction to comprehensive, patient centered nursing which utilizes a principle-oriented approach basic to all patients. These include the principles of communication, health teaching, basic nursing procedures, and psychiatry. The knowledge and skills necessary for carrying out nursing care measures and therapeutic techniques are presented through lecture, demonstration, and supervised clinical practice. Problem solving methods and student participation in planning and presenting classes are encouraged in order to illustrate the importance of approaching each new situation purposefully and problematically. The course is fundamental for providing opportunity for genuine integration of learning experiences at increasingly higher levels. Emphasis is placed on identifying the patient's needs and planning individual nursing care accordingly. Lecture 4 hours, Laboratory 8 hours.	

HT 51a,	<b>INTERPERSONAL RELATIONSHIPS</b>	1-1-1 UNITS
51b,	<b>Prerequisite:</b> None.	
51c	A group interaction course in which the student and his relationship to others is emphasized. Personality, motivation, and communication are discussed and practiced. Role playing, socio-dramas, group dynamics are woven into the program so that progressively the student learns more of himself and his relationship with others. This is an ongoing course providing a background in human relations throughout three semesters. Lecture 2 hours.	

HT 52	<b>MATERNAL AND INFANT CARE</b>	<b>3 UNITS</b>
	A study of physical and emotional changes in mothers during normal maternity cycle, normal growth and development of child from birth to adolescence, medical management principles and techniques of nursing pertaining to normal maternity cycle and newborn, care of child during common illnesses in relation to growth and development factors. Guided experiences in caring for mothers, newborn and children. Lecture 4 hours, Laboratory 9 hours.	
HT 53	<b>PROFESSIONAL-VOCATIONAL RELATIONSHIPS</b>	<b>2 UNITS</b>
	A study of basic legal considerations of importance to the nursing student, nursing organizations and the heritage of modern nursing and its historical development.	
HT 54	<b>MATERNAL AND CHILD HEALTH NURSING</b>	<b>11 UNITS</b>
	<b>Prerequisite:</b> HT 50.	
	Medical management, principles and techniques of nursing pertaining to normal maternity cycle and the newborn. Care of the child during common illnesses in relation to growth and development factors. Emphasis on developing competence in performing first level nursing care. Conferences will integrate understandings with new experiences to further the family-centered perspective. Guided experiences in caring for mothers, newborn and children. Participation in clinics, nursery-school and other child-care agencies. Lecture 4 hours, Laboratory 21 hours.	
HT 55a 55b	<b>PATIENT CARE IN MENTAL AND PHYSICAL ILLNESS</b>	
	<b>Prerequisites:</b> HT 50, HT 52.	<b>10-10 UNITS</b>
	Nursing of the physically and mentally ill is devoted to deviations from the normal and the illness of all ages. It will promote depth of understanding in the area of the patient, adult or child, wherever he is found. Advanced nursing skills will be presented along with patient evaluation, problem solving, and planning for patient care. The student is assigned total patient care of a few selected patients under the direction of the clinical instructor. Patients will be seen and followed through in the doctors' offices, hospitals, homes, and out-patient clinics. Continuity of care will be made in all phases of health occupations. Community health and psychiatric concepts will be integrated throughout. Teaching is done through audio-tutorial aids, lecture, discussion, demonstration and supervised clinical practice. Lecture 6 hours, Laboratory 12 hours.	
HT 58	<b>NURSING TRENDS SEMINAR</b>	<b>2 UNITS</b>
	<b>Prerequisites:</b> HT 50, HT 52, HT 55a, HT 55b.	
	A seminar discussion course in which the role of the nurse and her relationships with others is emphasized. Legal and ethical considerations, backgrounds of religion, nursing organizations and historical trends are discussed.	

# History

1	<b>HISTORY OF THE UNITED STATES TO 1865</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	A study of the development of American characteristics and nationality from the founding of the New World to the preservation of the Union in 1865, emphasizing the factors and forces which produced the Revolution Constitution, westward expansion, sectionalism and the Civil War.	
2	<b>HISTORY OF THE UNITED STATES SINCE 1865</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	A study of the social, economic and political forces that moved the United States through the periods of Reconstruction and industrialization, and into the position of a world power, focusing on both domestic and foreign affairs in the country's last century of development.	
4	<b>SURVEY OF WESTERN CIVILIZATION FROM ANCIENT TIMES TO THE REFORMATION</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	Discussion of the major historical trends from primitive man and the emergence of ancient civilization through the Protestant Reformation including such topics as the Aegean, Grecian, Roman, Medieval, and Renaissance civilizations with special emphasis upon the social, economic, political, and intellectual developments which characterize each historical era. Stress on the relationships of these developments to subsequent history.	
5	<b>MAJOR WORLD DEVELOPMENTS SINCE 1850</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	A study of the major developments taking place in the world arena since the industrial Revolution of the mid 19th century including events within Europe, Asia, Russia, China, and the Middle East which have helped shape and are shaping our present-day world.	
6	<b>INTRODUCTION TO THE HISTORY OF THE SOVIET UNION</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	A survey of Russian history since 1917, emphasizing revolutionary movements leading to the Bolshevik triumph, the early Soviet governments, the Stalin Era, Russia in WW II and the USSR in the contemporary world.	
15	<b>SURVEY OF THE AMERICAN WEST</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	A survey of the methods of penetration and the patterns of westward	

expansion and settlement of the Great American West, including the nature of exploitation, the contribution of minority groups, and the significance of the frontier in American history, with emphasis on the Southwest.

**16 AFRO-AMERICAN HISTORY**

**3 UNITS**

A survey of Afro-American history since the first century with emphasis on the rise and fall of slavery and the Afro-American contributions to the United States.

**18f SEMINAR AND FIELD STUDIES**

**6 UNITS**

**IN THE HISTORY OF THE SOUTHWEST**

A composite study of the American Southwest from the Spanish period until 1920 with field excursions to provide historical and geographic background so the student will more fully understand and appreciate the heritage of the area. Offered in the summer only.

**99 INDIVIDUAL STUDIES**

**1-4 UNITS**

**Prerequisites: Approval of Division Chairman and professor.**

The student with demonstrated academic ability will solve a problem under the direction of a faculty member with the approval of the Division Chairman.

## **Humanities**

**1 HUMANITIES IN CONTEMPORARY LIFE**

**3 or 4 UNITS**

**Prerequisite: Reading Y or equivalent.**

A study of contemporary thought, literature, and art as they occur in mass media: journalism, television, and motion pictures. Four units of credit will be granted for those students electing to submit critiques of required lectures, plays, motion pictures, concerts, and art exhibits.

**50 HUMANITIES**

**4 UNITS**

**Prerequisite: English 2 and sophomore standing.**

A study of the development of art, literature, and music in the western world from classical times to the late Middle Ages with particular emphasis on the development of concepts of freedom and justice. Lecture 3 hours, studio 2 hours.

**51 HUMANITIES**

**4 UNITS**

**Prerequisite: English 2 and sophomore standing.**

A continuation of Humanities 50 to the contemporary period. May be taken independently of Humanities 50. Lecture 3 hours, studio 2 hours.

## **Journalism**

<b>1</b>	<b>COMMUNICATIONS</b>	<b>3 UNITS</b>
<b>Prerequisites:</b> Eligibility for English 1, completion of English 1 with a C or better or permission of Professor.		
An introduction to mass communications media with emphasis on defining and applying the basic concepts of gathering, writing, and evaluating news for newspapers, magazines, radio, television, business publications, and house publications, and studying the principles and problems of mass communications. Taught spring semester only.		
<b>2</b>	<b>REPORTING</b>	<b>3 UNITS</b>
<b>Prerequisites:</b> Completion of Journalism 1 with a C or better or permission of professor.		
Practical experience in producing accurate, fair, and condensed news coverage through actual reporting for <i>The Heliograph</i> . Intended for sophomore students.		
<b>3</b>	<b>ADVANCED REPORTING</b>	<b>3 UNITS</b>
<b>Prerequisites:</b> Completion of Journalism 2 with a C or better or permission of professor.		
Improvement and development of skills through specialized reporting, rewriting, headline writing, feature writing, copyreading, proofreading and independent study with emphasis on the student's prospects and aptitude toward journalism as a career. Intended primarily for sophomore students.		
<b>10</b>	<b>PUBLICATIONS WORKSHOP</b>	<b>1 UNIT</b>
<b>Prerequisite:</b> Permission of professor.		
Participation in some phase of reporting, writing, photography, art, layout, through work on College publications. Students in scheduled journalism classes may not enroll. No student shall be awarded more than FOUR such journalism units at Cochise College.		

## **Mathematics**

<b>1X</b>	<b>FUNDAMENTAL MATHEMATICS</b>	<b>3 UNITS</b>
<b>Prerequisite:</b> Indicated mathematics deficiency.		
Emphasizes basic arithmetic concepts and drill in skills and techniques of computation. Designed for students with low scores on mathematics placement tests. Includes number systems, number bases, fundamental operations with whole numbers, fractions and decimals, measurement, percentage, approximate numbers, areas, volume. Credit towards Associate degree only. Lecture 3 hours.		

2X

**ELEMENTARY ALGEBRA** 3 UNITS

**Prerequisite:** Acceptable score in placement examination or grade of C or better in Math 1X.

Covers the content of a complete first-year high school algebra course for students who have not earned credit in elementary algebra. Includes fundamental operations on integers, powers and exponents, special products and factoring of polynomials, algebraic fractions, functions, graphs, equations, quadratic formula. Credit toward Associate degree only. Lecture 3 hours.

3X

**PLANE GEOMETRY** 3 UNITS

**Prerequisite:** One year high school algebra or Math 2X.

Covers the content of a complete high school plane geometry course for students who have not earned credit in plane geometry. Includes elementary logic, congruence, parallelograms, circles, inequalities, similar polygons, loci, constructions, area. Credit toward Associate degree only. Lecture 3 hours.

11

**INTERMEDIATE ALGEBRA** 3 UNITS

**Prerequisite:** One year of high school algebra and one year of high school geometry or Math 3X.

Includes real number system, polynomials, fractions, first and second degree equations, radicals, functions and graphs, simultaneous systems. This course may not be transferable for credit at the universities. One should check the catalog of the university he intends to attend. Lecture 3 hours.

12

**BASIC CONCEPTS OF NUMBER** 3 UNITS

**Prerequisite:** Two years of high school mathematics, not including general mathematics, or one year of college mathematics, not including Math 1X.

The nature of number and systems of enumeration, the logical structure of arithmetic, informal and formal geometry. Emphasis is on developing a basis for understanding the common processes of arithmetic and the metric and non-metric relations in geometry. Lecture 3 hours.

20

**COLLEGE ALGEBRA** 3 UNITS

**Prerequisites:** High school plane geometry or Math 3X together with one and one-half years of algebra in high school or Math 11 with grade of C or better.

Includes sets, logic of algebra, inequalities, absolute values, functions and graphs, linear and quadratic functions, determinants, polynomial functions, inverse functions, permutations and combinations, binomial theorem, mathematical induction, exponential and logarithmic functions, and complex numbers. Lecture 3 hours.

24

**PLANE TRIGONOMETRY****3 UNITS****Prerequisite: Math 20 or approval of the professor.**

Includes trigonometric functions, identities, related angles, radian measure, graphs, functions of two angles, equations, logarithms, right and oblique triangles, inverse functions, complex numbers. Lecture 3 hours.

26

**SLIDE RULE****1 UNIT****Prerequisite: Permission of the professor.**

Multiplication and division, ratio and proportion, square root, cube root, combined operations, logarithms, trigonometric functions, theory and practice of placing decimal point in all operations. Lecture 1 hour.

44

**COLLEGE ALGEBRA AND TRIGONOMETRY****5 UNITS****Prerequisites: High school plane geometry or Math 3X, together with two years of high school algebra or Math 11.**

Includes sets, logic of algebra, inequalities, absolute values, functions and graphs, circular functions, linear and quadratic functions, determinants, polynomial functions, inverse functions, permutations and combinations, binomial theorem, mathematical induction, exponential and logarithmic functions, applications of circular functions, complex numbers. Lecture 5 hours.

51

**ANALYTICAL GEOMETRY WITH CALCULUS****5 UNITS****Prerequisites: Four years of high school mathematics with permission of the professor or Math 20 and Math 24 or Math 44. Absolute value and inequality; relations, functions, and graphs; limits and continuity; definition and application of the derivative, antiderivative, and definite integral; differentiation of algebraic functions; trigonometry; and conic sections. Lecture 5 hours.**

52

**ANALYTICAL GEOMETRY WITH CALCULUS****5 UNITS****Prerequisite: Math 51 with a grade of C or better.**

Differentiation of trigonometric and exponential functions and their inverses; parametric equations; arc length; polar coordinates; formulas, methods, and applications of integration; solid analytical geometry, and vectors in a plane. Lecture 5 hours.

53

**ANALYTICAL GEOMETRY WITH CALCULUS****3 UNITS****Prerequisite: Math 52 with grade of C or better.**

Vectors in three dimensions, elements of infinite series, partial differentiation and multiple integration. Lecture 3 hours.

54

**DIFFERENTIAL EQUATIONS****3 UNITS****Prerequisite: Math 53 with grade of C or better.**

Special types of first order differential equations by methods of

variables separable, homogeneous functions, exact differentials, integrating factors, Bernoulli and Clairaut, and inspection; simple higher order equations; general higher order linear differential equations having constant or variable coefficients with emphasis on obtaining a particular solution by methods of undetermined coefficients, variation of parameter, and differential operations; solutions of simultaneous differential equations; LaPlace Transformation and use of series, and applications of differential equations to physical problems. Lecture 3 hours.

99	<b>INDIVIDUAL STUDIES</b>	<b>1-4 UNITS</b>
<b>Prerequisite:</b> Approval of Division Chairman and Professor.		
The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.		

## Music

1	<b>INTRODUCTION TO MUSIC</b>	<b>3 UNITS</b>
<b>Prerequisite:</b> None.		
An introduction to musical form with emphasis on listening to recorded music of the eighteenth century through the twentieth century. Lecture 2 hours, studio 1 hour.		
2	<b>INTRODUCTION TO MUSIC</b>	<b>3 UNITS</b>
<b>Prerequisite:</b> None.		
A continuation of Music 1 with emphasis on style characteristics of music from the Renaissance to the present. Lecture 2 hours, studio 1 hour.		
10(B)	<b>BAND</b>	<b>1 UNIT</b>
<b>Prerequisite:</b> Audition.		
Study and performance of outstanding musical literature transcribed from orchestral repertory or composed for band. May be repeated for credit. Daily rehearsal.		
10(C)	<b>CHOIR</b>	<b>1 UNIT</b>
<b>Prerequisite:</b> Audition.		
Study and performance of outstanding literature from various periods of musical composition. May be repeated for credit. Daily rehearsal.		
20(I)	<b>ENSEMBLE</b>	<b>1 UNIT</b>
<b>Prerequisites:</b> Audition and two years playing experience.		
Study and performance of music appropriate to duets, trios, quartets or larger ensembles of mixed or like instruments. May be repeated for credit. Rehearsal 3 hours per week.		

20(V)	<b>ENSEMBLE</b>	1 UNIT
<b>Prerequisites: Audition and two years singing experience.</b>		
Study and performance of vocal literature appropriate to duets, trios, or larger vocal ensembles. Rehearsal 3 hours per week.		
30	<b>KEYBOARD HARMONY</b>	1 UNIT
<b>Prerequisite: To be taken concurrently with Music 32.</b>		
Special work on ear training, keyboard harmonization, and application of musical theory to the keyboard. Studio 2 hours.		
32a-32b	<b>MUSIC THEORY</b>	3 UNITS
<b>Prerequisite: 32a is a prerequisite for 32b.</b>		
A systematic study of the rules of music with emphasis on ear training and sight singing. Lecture 3 hours.		
50	<b>INTRODUCTION TO JAZZ</b>	3 UNITS
<b>Prerequisite: None.</b>		
A study of the history and development of jazz music in the United States from 1900 to the present.		

## Philosophy

11	<b>INTRODUCTION TO PHILOSOPHY</b>	3 UNITS
<b>Prerequisites: English 2 and sophomore standing.</b>		
An introduction to philosophical method and a study of the major concepts of western philosophy with emphasis on an examination of the nature of reality, meaning, and right conduct. Lecture 3 hours.		
13	<b>INTRODUCTION TO MORAL PHILOSOPHY</b>	3 UNITS
<b>Prerequisite: None.</b>		
An introduction to the major ethical and moral problems with emphasis on contemporary questions of morality and ethics.		
20	<b>PHILOSOPHIES OF THE EAST</b>	3 UNITS
<b>Prerequisite: English 2 and sophomore standing.</b>		
An introduction to the thought of Hinduism, Buddhism, Taoism, and Confucianism with emphasis on their roles in the modern world. Lecture 3 hours.		
21	<b>PHILOSOPHY OF RELIGION</b>	3 UNITS
<b>Prerequisite: English 2 and sophomore standing.</b>		
Introduction to the nature of religion, nature and existence of God, and major religious tenets of western thought.		

## Physical Education

10	<b>BEGINNING COED GYMNASTICS</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Beginning and intermediate skills on all the basic pieces of gymnastics apparatus.	
11	<b>INTERMEDIATE COED GYMNASTICS</b>	1 UNIT
	<b>Prerequisite:</b> PE 10 or permission of professor.	
	Further development of previously acquired gymnastic skills on all pieces of gymnastics apparatus.	
12	<b>WEIGHT TRAINING/WRESTLING (Men Only)</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	The basic skills and knowledge necessary in weight training and wrestling with opportunity for competitive intraclass wrestling. Taught fall semester only.	
13	<b>MODERN DANCE (Women Only)</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Individual and group physical exercises and opportunity for expression through modern dance interpretations. Taught spring semester only.	
14	<b>COED BADMINTON/VOLLEYBALL</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Badminton and volleyball with emphasis on the mastery of fundamentals.	
15	<b>BEGINNING COED BOWLING</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Development of beginning skills of bowling with emphasis on mastery of fundamentals.	
16	<b>INTERMEDIATE COED BOWLING</b>	1 UNIT
	<b>Prerequisite:</b> PE 15 or permission of professor.	
	Further development of previously acquired bowling skills.	
17	<b>BEGINNING COED TENNIS</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Introduction to the beginning skills of tennis with emphasis on mastery of fundamentals.	
18	<b>INTERMEDIATE COED TENNIS</b>	1 UNIT
	<b>Prerequisite:</b> PE 17 or permission of professor.	
	Further development of previously acquired tennis skills including the basic strategy of competitive tennis.	

19	<b>BEGINNING COED GOLF</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Development of beginning skills of golf with emphasis on mastery of fundamentals.	
20	<b>INTERMEDIATE COED GOLF</b>	1 UNIT
	<b>Prerequisite:</b> PE 19 or permission of professor.	
	Further development of previously acquired golf skills, including chipping, putting, pitching and driving. Introduction of "special shots" and different forms of competition.	
21	<b>COED SQUARE AND SOCIAL DANCE</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Introduction to the various ballroom steps in social dancing with the opportunity to master traditional American square dances. Taught fall semester only.	
22	<b>COED ARCHERY</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Target archery and clout shooting with opportunity for improvement of existing skills.	
23	<b>BEGINNING HANDBALL/WEIGHT TRAINING</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Development of basic skills of handball through instruction, participation and intra-class competition and execution of basic weight training exercises.	
24	<b>BEGINNING SWIMMING</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	For the non-swimmer, guidance through primary phases of learning to swim with the final objective of the course the ability to swim 30 yards.	
25	<b>INTERMEDIATE COED SWIMMING</b>	1 UNIT
	<b>Prerequisite:</b> PE 24 or permission of professor.	
	Opportunity to improve on skills in the four fundamental strokes — crawl, breast, back and side — with final objective of the course the ability to swim continuously for five minutes on front, side and back.	
26	<b>ADVANCED COED SWIMMING AND WATER SPORTS</b>	1 UNIT
	<b>Prerequisite:</b> PE 25 or permission of professor.	
	Development of variations of the four fundamental strokes and other miscellaneous water skills. Introduction to water polo, synchronized swimming and other aquatic activities. Taught fall semester only.	

27	<b>COED LIFE SAVING</b>	1 UNIT
	<b>Prerequisite:</b> PE 26 or permission of professor.	
	Development to meet the requirements of the Standard Red Cross course leading to certification in Senior Life Saving. Taught spring semester only.	
28	<b>COED ADAPTED PHYSICAL EDUCATION</b>	1 UNIT
	<b>Prerequisite:</b> Written statement from a licensed physician requiring a limited activities program.	
	A personalized program of physical education consistent with the recommendation of private physician.	
29	<b>TRAMPOLINING/BODY CONDITIONING (Men Only)</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Development of the basic and intermediate skills of trampolining and practice in several activities for body dynamics using a variety of pieces of equipment.	
30	<b>TRAMPOLINING/BODY DYNAMICS (Women Only)</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	Development of the basic and intermediate skills of trampolining and practice in several activities for body dynamics, using a variety of pieces of equipment.	
31	<b>VARSITY SPORTS</b>	1 UNIT
	<b>Prerequisite:</b> Permission of Professor.	
	Membership in class based on participation as members of a varsity collegiate team.	
32	<b>SONG AND CHEERLEADING (Fall Only)</b>	1 UNIT
	<b>Prerequisite:</b> Permission of Professor.	
	Membership in class based on participation on the songleading or cheerleading squads, with emphasis on individual and group physical exercise stunts, and dances with demonstration of these skills at rallies and games. Taught fall semester only.	
33	<b>HIKING</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	The student will participate in the wilderness trail and off-trail hiking and will learn the care of equipment, the use of maps, the care and protection of wilderness trails, the use of emergency first aid and the importance of physical conditioning.	
34	<b>COED BILLIARDS</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	The student will be introduced to the skills of billiards with attention to rules, etiquette and proper playing techniques.	

35	<b>COED SCUBA DIVING</b>	1 UNIT
	<b>Prerequisite:</b> Student should be able to swim.	
	The student will be introduced to all aspects of scuba diving fundamentals and techniques with actual experience in the ocean. NAUI certification may be achieved upon successful completion of the course.	
36	<b>BEGINNING COED YOGA</b>	1 UNIT
	<b>Prerequisite:</b> None.	
	The student will be introduced to the beginning and intermediate postures of yoga, with a brief introduction to the advanced postures. Lecture and participation two hours per week	
55	<b>ORIENTATION TO PHYSICAL EDUCATION</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	An introduction to the nature and scope of physical education, its historical development, basic philosophy and objectives, changing concepts, scientific foundations, and professional opportunities. Taught spring semester only.	
171	<b>ORIENTATION TO RECREATION</b>	2 UNITS
	<b>Prerequisite:</b> None.	
	Analysis of the nature and scope of the field of recreation, its historical development, philosophy and objectives, changing concepts, scientific foundations and professional opportunities, recreation in American life, roles of various levels of government in recreation, relationships between physical education, health, camping and outdoor recreation. Taught fall semester only.	
189	<b>ELEMENTARY SCHOOL PHYSICAL EDUCATION</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	A study of the scope and values of physical education and movement education in the elementary school including the teaching designs for primary and intermediate grades pertaining to physical education as well as knowledge necessary to evaluate physical education programs. Course designed for prospective elementary education teachers, physical education majors and minors. Taught fall semester only.	
190	<b>SPORTS OFFICIATING</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	A lecture and laboratory course which will develop the art and skill of officiating several sports including basketball, football, baseball and volleyball. Completion of the course will qualify a person for trainee and/or probationary status with the Arizona Interscholastic Association. Taught fall semester only.	

# Physics

## INTRODUCTION TO PHYSICS 4 UNITS

**Prerequisite: None.**

A survey course in the basic concepts of physics. Limited emphasis on mathematical applications. Lecture 3 hours, Laboratory 3 hours.

## GENERAL PHYSICS 4-4 UNITS

**Prerequisite: Math 11 or equivalent high school background.**

**2a is a prerequisite for 2b.**

Lectures, demonstration, and problems in mechanics, properties of matter, heat, sound, light, electricity and magnetism, and atomic and nuclear physics. Designed for the more interested liberal student. Lecture 3 hours, Laboratory 3 hours.

## INTRODUCTORY PHYSICS WITH CALCULUS 4-4 UNITS

**Prerequisite: Math 51.**

Lectures, demonstrations and problem solving at the calculus level in classical physics — mechanics, heat and thermodynamics, sound, light, electricity and magnetism and atomic and nuclear physics. Designed for engineers, scientists and mathematicians. Lecture 3 hours, Laboratory 3 or.

## INDIVIDUAL STUDIES 1-4 UNITS

**Prerequisite: Approval of Division Chairman and Professor.**

The student will solve a problem or work on a project under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

# Police Science

## INTRODUCTION TO POLICE SCIENCE 3 UNITS

**Prerequisite: None.**

The history of police science in the United States and Europe including study of the different law enforcement agencies and their standards, qualifications, and functions, application of police report writing procedures and analysis of current law enforcement books and periodicals, and application of basic criminal procedures of the judicial system to problems similar to those encountered in police work.

## POLICE PATROL FUNCTIONS I 3 UNITS

**Prerequisite: None.**

An introductory course designed to present the various duties and responsibilities of the police patrol division covering the basic theories of patrol, care of uniforms and personal equipment, including the care and use of protective weapons, self defense, use of

patrol cars and police radio, and elements of patrol systems arrest and the handling of prisoners.

24	<b>POLICE PATROL FUNCTIONS II</b>	3 UNITS
	<b>Prerequisite:</b> PS 22.	
	A study of the organization of the patrol division, including the structure and special problems of patrol administration in depth. Emphasis upon the organization and functions of the chain of command, and span of control exerted by the supervisory and command officers of the patrol division.	
26	<b>POLICE ORGANIZATION AND ADMINISTRATION</b>	3 UNITS
	<b>Prerequisites:</b> PS 20, PS 22 and PS 24.	
	Study of the basic administrative and organizational concepts being advanced in police science including the organization of police service, the administrative services, the operational police services, and the auxiliary services and police plant facilities.	
27	<b>RULES OF EVIDENCE</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	Examination of the field of evidence from a practical standpoint directed to give a workable and understandable discourse on the field of evidence, with emphasis on those areas of interest and importance to the police officer in his daily work.	
30	<b>JUVENILE PROCEDURES</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	Study of the social problem of juvenile delinquency, some of its causes, and what is being done to correct such causes. Juvenile delinquency and dependency and the police, juvenile crime, procedure of arrest, juvenile court, correctional methods and facilities, and the various aspects and effectiveness of rehabilitative procedures.	
32	<b>CRIMINAL LAW I</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	Seminar discussions on the criminal procedure from arrest to acquittal or release including examination of the various officers, such as the magistrate, coroner, and county attorney, as to their functions and duties in the criminal process and civilian and military legal jurisdiction.	
34	<b>CRIMINAL LAW II</b>	3 UNITS
	<b>Prerequisite:</b> None.	
	Study of the three main working areas of law enforcement for the police officers: arrest, search, and seizure. Discussion of constitutional law cases involving these areas in detail.	

35

**PHYSICAL EVIDENCE: PHOTOGRAPHY I**

**3 UNITS**

**Prerequisite: PS 27.**

This course is designed to familiarize the student with the basic procedures of taking photographs of physical evidence, crime scenes and traffic accidents. The student will be given the opportunity of learning darkroom procedures involving development of film, making prints and enlarging prints. Color slide development for police in-service training films will allow the student to develop techniques for presentation to groups for instructional purposes.

36

**PHYSICAL EVIDENCE: RECOGNITION,  
COLLECTION, PRESERVATION**

**3 UNITS**

**Prerequisite: None.**

Examination of the various forms of physical evidence that may be located at the crime scene. Emphasis on importance of physical evidence in the successful prosecution of the guilty including proper collection, packaging, and transportation of such evidence as latent fingerprints, plaster casts, blood, semen, hair, tissue, soil, grasses. Study of specific types of crime, e.g. homicide, robbery, burglary, sex crimes, and hit-and-run to familiarize the student with the criminal "method of operation".

38

**CRIMINAL INVESTIGATION**

**3 UNITS**

**Prerequisite: PS 20.**

A study of the investigative methods and procedures used in major and minor crimes. Emphasis on sources of information, preliminary and follow-up investigation, and identification of individuals.

46

**POLICE COMMUNITY RELATIONS**

**3 UNITS**

**Prerequisite: PS 20 and PS 22.**

Through seminar study, preparation of researched data, which is logical, substantiated and well-documented with plans for the improvement of law enforcement relationships within the communities served. In-service students will be required to offer solutions to problems similar to those encountered in their own communities.

49

**CONSTITUTIONAL LAW**

**3 UNITS**

**Prerequisite: PS 20, PS 27, and PS 33.**

A comprehensive study of the development of the Federal Constitution and a history of the Bill of Rights, emphasis on the first, eighth and the fourteenth amendments as related to corresponding state provisions and recent Supreme Court interpretations and trends. Study of numerous cases in depth.

52	<b>ACCIDENTS, CITATIONS, DISORDERS</b>	3 UNITS
	<b>Prerequisite: None.</b>	
	Study of various types of accident situations (automobile, airplane and other vehicles), methods of handling, reporting, and scale recording of accidents, emphasis on citations — what they are, their function, their forms, and their place in traffic enforcement. Study of various kinds of civil disorders, police methods of containment, dispersing and arresting participants, equipment used by the police and legal aspects of disorder.	
54	<b>PSYCHOLOGY IN LAW ENFORCEMENT</b>	3 UNITS
	<b>Prerequisite: PS 20 or permission of Professor.</b>	
	Study of the basic fundamental terms and psychological theories including comparison and evaluation of some psychological theories advanced and how they could apply to police science. Discussion of the police officer encountering the mentally disturbed.	
56	<b>CRIMINOLOGY</b>	3 UNITS
	<b>Prerequisite: Sociology 1 or permission of Professor.</b>	
	Methods of collecting information regarding crime, the organization and systemization of such information, and the drawing conclusions from such data; the examination of facts of crime and delinquency and relating them to the differential association and differential social organization theories. The factual data examined include variations of crime and delinquency rates with age, sex, race, poverty, educational status, urbanization and other variables.	

## Political Science

2	<b>AMERICAN NATIONAL GOVERNMENT</b>	3 UNITS
	<b>Prerequisite: None.</b>	
	A study of the modern political systems of the United States including such topics as Constitution, voting, political parties, campaigns and elections, pressure groups, Congress, the Presidency, the federal bureaucracy and the federal judiciary to increase the student's understanding of the political arena in which he lives. Not open to students with credit in Political Science 57. The course fulfills the Federal Constitution requirement for an Arizona Teaching Certificate.	
50	<b>INTRODUCTION TO INTERNATIONAL RELATIONS</b>	3 UNIT
	<b>Prerequisite: Consent of Instructor.</b>	
	An introduction to the international system of relations between nation-states of the world, with primary emphasis on capability, ends and means of policy, and the struggle for world order. Not open to first semester freshmen.	

57	<b>NATIONAL AND ARIZONA CONSTITUTION</b>	<b>3 UNITS</b>
	<b>Prerequisite: Sophomore standing.</b>	
	A study of the governments of the United States and Arizona through the interpretation of the Constitution of each political entity. This course is approved for teacher certification. Teachers needing only Arizona Constitution may take the Arizona portion of the course for 1 unit of credit. Students majoring in Political Science should take Political Science 2.	
99	<b>INDIVIDUAL STUDIES</b>	<b>1-4 UNITS</b>
	<b>Prerequisite: Approval of Division Chairman and Professor.</b>	
	The student with demonstrated academic ability will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.	
<b>Psychology</b>		
1	<b>ELEMENTARY PSYCHOLOGY</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	A survey of the fundamental methods and principles of psychology with major emphasis on growth and development, learning and conditioning principles, psychological measurements — testing, motivation, and emotion.	
2	<b>ELEMENTARY PSYCHOLOGY</b>	<b>3 UNITS</b>
	<b>Prerequisite: Psychology I.</b>	
	A more intensive study of the realm of psychology with emphasis on the psychobiological basis of behavior, intelligence, sensation, perception, higher mental processes, personality and adjustment, abnormal psychology, and social psychology.	
10	<b>INTRODUCTION TO SOCIAL PSYCHOLOGY</b>	<b>3 UNITS</b>
	<b>Prerequisite: None.</b>	
	An introduction to basic theories and concepts necessary to the study of social psychology with emphasis on culture and group situations as they are related to the individual.	
99	<b>INDIVIDUAL STUDIES</b>	<b>1-4 UNITS</b>
	<b>Prerequisite: Approval of Division Chairman and Professor.</b>	
	The student with demonstrated academic ability will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.	

X

**SOCIAL SCIENCE**

**3 UNITS**

**Prerequisite: None.**

An introduction to the several disciplines in the social sciences — anthropology, geography, history, political science, psychology, sociology — with an emphasis on how to read and interpret materials within each discipline.

5

**MEXICAN HERITAGE**

**3 UNITS**

**Prerequisite: None.**

Mexican-American culture from the anthropological, historical, and sociological viewpoint with emphasis upon prehistoric periods through the 19th century.

6

**THE CHICANO IN CONTEMPORARY SOCIETY**

**3 UNITS**

A survey of the Chicano culture, traditions, attitudes and ideals from the historical and sociological viewpoints with emphasis upon contemporary problems and conditions. Special attention will be given to social, cultural, economic, political and educational developments of the Chicano in the Southwest.

## **Sociology**

1

**INTRODUCTION TO SOCIOLOGY**

**3 UNITS**

**Prerequisite: None.**

An overview of the controversial aspects of sociology through major concepts of writers and presentation of verifiable social facts about group phenomena with student experience in selected social research.

2

**SOCIAL PROBLEMS**

**3 UNITS**

**Prerequisite: Sociology 1.**

A study of contemporary major social problems through selected writings of various authors to provide "the means for understanding the source, nature, and possible resolution of them."

99

**INDIVIDUAL STUDIES**

**1-4 UNITS**

**Prerequisite: Approval of Division Chairman and Professor.**

The student with demonstrated academic ability will solve a problem under the direction of a faculty member with the approval of the Division Chairman.

# Spanish

1X,2X  
3Y,4X

**CONVERSATIONAL SPANISH** 3-3-3 UNITS

**Prerequisites:** 1X for 2X, 2X for 3X, 3X for 4X or the satisfactory performance upon a written and oral exam in lieu of any one of courses in this series.

The student goals are the same as for Spanish 1a and 1b, however, classes will meet fewer hours per week, and will as a result cover less material in a semester. 1X and 2X will be considered the equivalent of 1a, 3X and 4X the equivalent of 1b. Credit will be transferable upon the completion of 4X.

1a,1b

**ELEMENTARY SPANISH** 4-4 UNITS

**Prerequisite:** 1a is a prerequisite of 1b.

For students with less than two years of high school Spanish, those who took Spanish but have been away from it for two or more years, and students with no experience. Comprehension of the spoken language, proper pronunciation, grammar, reading skills, composition and conversation will be stressed. Lecture 4 hours, lab 2 hours arranged.

3a,3b

**INTERMEDIATE SPANISH** 4-4 UNITS

**Prerequisites:** Spanish 1b or two years of high school Spanish taken not earlier than one year prior to registration at Cochise and completed with average grade or better, or competency as demonstrated to the satisfaction of the professor.

Review of grammar, reading, writing and speaking; introduction to simple literature (short stories, novels, plays of selected Spanish authors). Lecture (Spanish) 4 hours, lab 2 hours. Course is conducted primarily in Spanish with only those explanations in English necessary for comprehension.

50x,51x

**INTERMEDIATE CONVERSATIONAL SPANISH** 3-3 UNITS

**Prerequisite:** Spanish 4X or 2 years of recent high school Spanish or permission of Professor.

A study of selected excerpts of Hispanic literature. Class and individual discussion of material in Spanish with stress upon the skills of reading, writing and interpreting Hispanic literature and culture. A more detailed exposure to Spanish idioms.

52x

**INTERMEDIATE CONVERSATIONAL SPANISH** 3 UNITS

**Prerequisites:** This course is designed for those who have completed 51x or 3a Spanish at Cochise College or five semesters of recent high school Spanish or by permission of the Professor.

This is a study of selected excerpts of Hispanic literature with primary stress upon individual and class oral participation. Stress is

also placed upon the ability to understand spoken Spanish at a normal rate of speed of a native speaker. Stress is placed upon the skills of reading, writing and interpreting Hispanic literature and culture. This study will involve the student in the use of Spanish in all areas of academic endeavor at the intermediate level.

**75a, 75b INTERMEDIATE COMPOSITION AND CONVERSATION 3-3 UNITS**

**Prerequisite:** Spanish 3b or completion of course similar to Spanish 3b (Mexican schooling above 6th grade, four years of high school Spanish).

Topic-centered composition and discussion. Application of grammar and increased vocabulary from a variety of readings, class discussions and individual presentations. Course conducted in Spanish.

**104a INTRODUCTION TO SPANISH LITERATURE 3-3 UNITS**

**104b Prerequisite:** Spanish 3b and permission of Professor or completion of course similar to Spanish 3b (Mexican schooling above 6th grade or four years of high school Spanish) and permission of Professor.

An introduction to the works of representative Spanish authors from the beginnings of literary works in Spain to the present. A general knowledge of the history and development of the arts in Spain will be acquired. Emphasis is placed on reading, understanding and analyzing Spanish literary works, through the literary ideas which originated in Spain that later spread to the rest of the Hispanic World. Course is conducted completely in Spanish.

**99 INDIVIDUAL STUDIES 1-4 UNITS**

**Prerequisites:** Approval of Division Chairman and Professor. Problem solution under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.

**Speech**

**2 FUNDAMENTALS OF SPEECH 3 UNITS**

**Prerequisite:** None.

Study of fundamental techniques of public speaking, experience in construction and delivery of speeches of various types, and evaluation of speeches of other members of the class and the speeches of famous speakers.

**5 BROADCAST SPEECH 3 UNITS**

**Prerequisite:** None.

An introduction to modern broadcasting operations, with emphasis on the theory and practice of radio speaking, including voice and articulation improvement, pronunciation, and delivery of copy.

10

**PUBLIC SPEAKING****3 UNITS****Prerequisite: Speech 2 or permission of Instructor.**

Brief review of the fundamentals of public speaking, with delivery of various types of speeches and evaluation of speeches of others. Practice in and out of class toward improvement of quality and use of voice with participation in discussions and demonstrations of parliamentary procedure and public discussion.

15

**ARGUMENTATION AND DEBATE****3 UNITS****Prerequisite: Speech 2 or permission of Professor.**

A study of skills of practical reasoning and of how to appraise and use evidence, recognize fallacies and learn to apply debate forms and oral style of argumentation. Evaluation on the basis of participation in class discussion, presentation of speeches and participation in debates. Intercollegiate debate optional for class members.

2

**FORENSICS****1 UNIT****Prerequisite: None, although Speech 2 or high school speech will be beneficial.**

Development of skills in one or more of the following:

- a. debate
- b. original oration
- c. extemporaneous speaking
- d. impromptu speaking
- e. dramatic reading and various forms of oral interpretation of literature.

Participation in intraclass competition and in one or more inter-collegiate contests.

36

**THE ORAL INTERPRETATION OF LITERATURE****3 UNITS****Prerequisite: Speech 2 or permission of Professor.**

Application of a variety of interpretive techniques to impart orally the intellectual and emotional meaning of the printed page: poetry, prose and drama.

**Trade and Industrial**

TI 5

**WELDING****3 UNITS****Prerequisite: None.**

The basic processes of oxy-acetylene and arc welding including safety, selection of electrodes, welding joints, types of beads and development of basic skills. Emphasis is on welding mild steel in flat and horizontal positions, fusion welding of light-gauge steel, and brazing.

TI 7	<b>WELDING</b>	3 UNITS
	<b>Prerequisite:</b> TI 5.	
	Stress on the electric arc welding processes covering joints and beads on light-gauge steel and heavy structural steel in vertical and overhead positions. Tungsten inert gas welding (Heliarc) on aluminum and stainless steel is practiced. Bronze, cast iron, brazing, hard-surfacing, cutting, and pipe welding are emphasized in the fusion and oxy-acetylene portion of this course.	
TI 9	<b>GENERAL MECHANICS -- AUTOMOTIVE</b>	3 UNITS
	Classroom theory and supporting laboratory experience for routine automotive maintenance to develop entry-level skills or auto tune-up, electrical systems, fuel systems, cooling systems, lubrication systems and oils, transmissions and clutches, brake systems and accessories, such as air conditioning.	
TI 10	<b>GENERAL MECHANICS — AUTOMOTIVE</b>	3 UNITS
	Theory and supporting laboratory experience for an in-depth approach to automotive troubleshooting including learning to identify and repair common automotive problems.	
TI 20	<b>CONSTRUCTION TRADES PRINCIPLES</b>	7-14 UNITS
	<b>Prerequisite:</b> None.	
	Classroom theory and laboratory experience on various phases of residential construction. Designed as an overview of various construction procedures and providing for development of limited skills in concrete work, masonry, plumbing, electrical, carpentry, and roofing.	
TI 22	<b>CONSTRUCTION — CARPENTRY APPRENTICESHIP</b>	6 UNITS
TI 23	<b>CONSTRUCTION — CARPENTRY APPRENTICESHIP</b>	6 UNITS
TI 24	<b>CONSTRUCTION — CARPENTRY APPRENTICESHIP</b>	6 UNITS
TI 25	<b>CONSTRUCTION — CARPENTRY APPRENTICESHIP</b>	6 UNITS
TI 26	<b>CONSTRUCTION — CARPENTRY APPRENTICESHIP</b>	6 UNITS
	<b>Prerequisite:</b> Student must be employed in the construction trades and be recommended by his employer.	
	A sequence of courses over a two and one-half year period for apprentices in the carpentry trade in conjunction with a minimum of 5000 hours on-the-job training through Cooperative Education — Construction. With performance at required levels, successful completion of the program enables student to qualify for advanced apprenticeship or journeyman standing. Courses supplement TI 20, Construction Trades Principles.	

TI 30 **SERVICE STATION/AUTO PARTS** 6 UNITS  
**OPERATION AND MANAGEMENT I**  
**Prerequisite:** None.  
Introduction to the operation of service stations or auto parts counter sales with emphasis on basic work habits, sales and minimal technical activities required for successful operation of a service station or auto parts establishment. The student will be employed in a cooperating service station or auto parts store 32-40 hours a week in addition to classroom work through the cooperative education program (8 units cooperative education credit per semester).

TI 32 **SERVICE STATION/AUTO PARTS** 6 UNITS  
**OPERATION AND MANAGEMENT II**  
Development of competencies in automotive tune-up and minor repairs, bookkeeping and supervisory relations. Employment a cooperative education credit same as TI 30.

## **ZOOLOGY**

1a-1b **GENERAL ZOOLOGY** 4-4 UNITS  
**Prerequisite:** High school Chemistry or Chemistry 2a or Chemistry 12 or concurrent enrollment in Chemistry 2a or Chemistry 12. 1a is a prerequisite to 1b except by special permission of the Professor.  
An introduction to animal biology, structure and classification and a survey of animal phyla with an emphasis on vertebrate groups. Principles of genetics, ecology, and embryology. Dissections of specimens representative of major phyla including dissection of typical vertebrates. Lecture 2 hours, Laboratory 6 hours.

20A-20B **HUMAN ANATOMY AND PHYSIOLOGY** 4-4 UNITS  
**Prerequisites:** Zoology 20A with a passing grade is prerequisite for 20B, or permission of the Instructor.  
A study of the physical, structural and functional features of the cells, tissues, organs, and systems of the human body. Lecture 3 hours, Laboratory 3 hours, Discussion period 1 hour (optional).

29 **INDIVIDUAL STUDIES** 1-4 UNITS  
**Prerequisite:** Approval of Division Chairman and Professor.  
The student will solve a problem under the direction of a faculty member with the approval of the Division Chairman. May be repeated for credit.