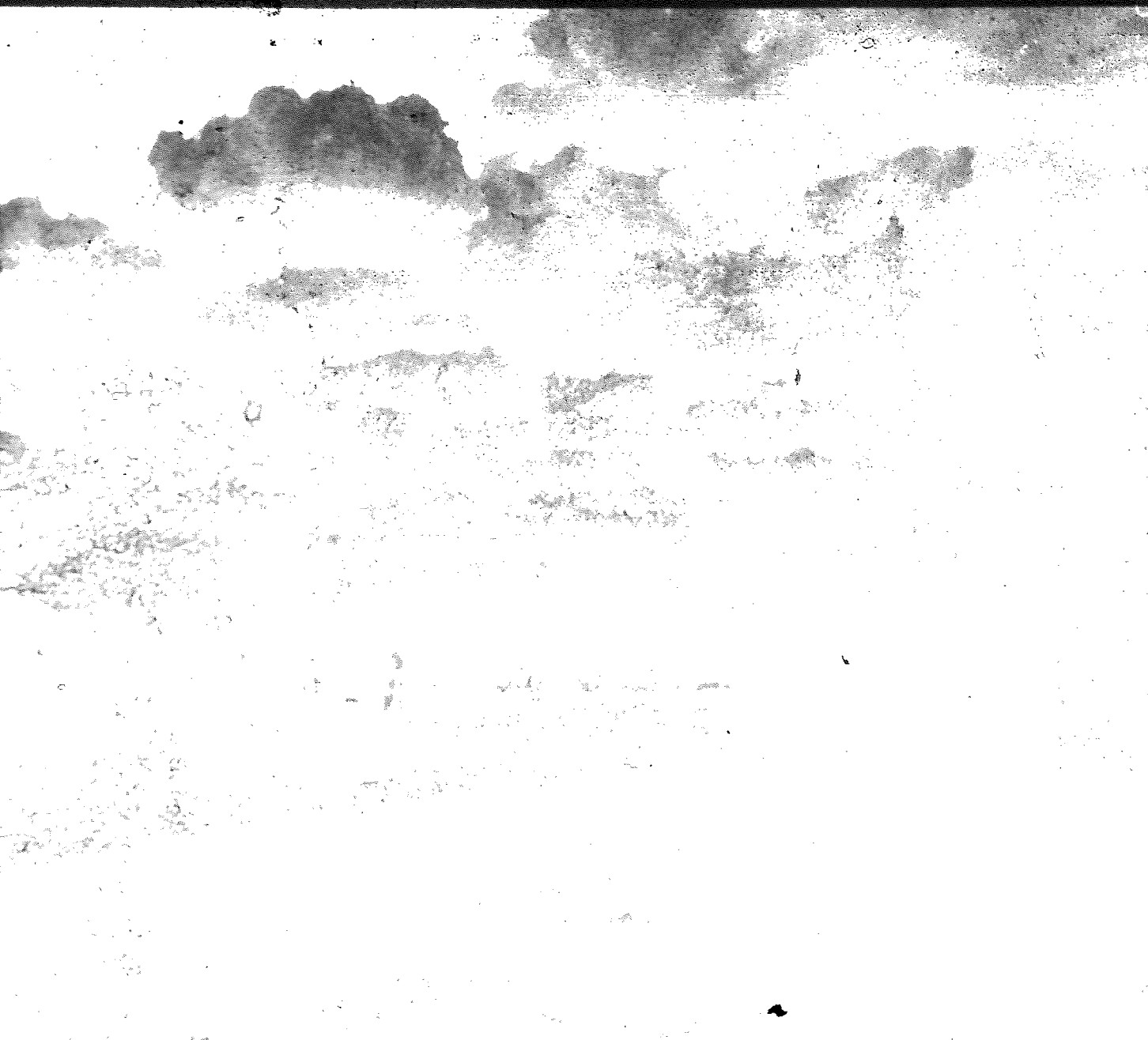


# **COCHISE COLLEGE**

***Douglas, Arizona***



**1968-69**

# Administration

## GOVERNING BOARD

Fred Dunsmore .....	Chairman
Martin Gentry .....	Secretary
Calvin Jones .....	Member
Dr. Charles Di Peso .....	Member
Charles Bloomquist .....	Member

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Robert W. Cox, Ed. D. in English .....	Dean of Academic Curricula
Allan W. Petersen, M.S. ....	Dean of Occupational Curricula
Irvin Von Destinon, M.A. ....	Dean of Business Services
Jack Corkery, M.A. ....	Dean of Students
Richard Olivanti, M.A. ....	Administrative Assistant to the President

## DIRECTORS

Cliff Holt, M.P.A. ....	Student Activities
Miss Ida Ojeda, M.A. ....	Learning Resources
James Rassi, M.A., M.A. ....	Admissions and Placement
Paul Rowland .....	Physical Plant

## COUNSELORS

Charles Guerrero, M.A.; Therman Healy, Ed. Spec.; Terry DeCroes, M.A.

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

# **Faculty**

## **BUSINESS DIVISION**

Eldon Johnson, M.A., division chairman; Gary Ragsdale, M.A.; Miss Sharon Smith, B.S.; Robert Sweeney, M.A.

## **COMMUNICATIONS DIVISION**

Donald R. Johnson, M.A., division chairman; John Doty, M.S. Ed.; Barent Gjelsness, M.A.; Arlo Janssen, M.A.; Mrs. Alicia Malik, M.A.; Miss Mary Lee Moat, M.A.; Cecil Orozco, M.A.; Warren Schofield, M.A.; Baysol Turner, M.A.

## **HUMANITIES AND FINE ARTS**

Joe Gilliland, M.A., division chairman; L. LeGrand Andersen, M.A.; Raymond Levra, M.F.A.; Maxwell Wager, M.A.

## **LEARNING RESOURCES CENTER**

Miss Ida Ojeda, M.A., Director; Mrs. Elizabeth Dickinson, M.A., Assistant Librarian.

## **PHYSICAL EDUCATION AND HEALTH DIVISION**

Leon Beaty, M.Ed., division chairman; Richard Atkinson, M.S.; Miss Rebecca Gibson, M.E.; Hollie Ryder, M.A.

## **SCIENCE AND MATH DIVISION**

Robert Champlain, Ph.D., division chairman; Mrs. Vivian Boysen, M.A.; Donald Campbell, M.A.; Charles Field, M.A.; Cecil Huncovsky, M.S.; John Jewell, M.A.; E. Gene Riggs, M.S.

## **SOCIAL SCIENCE**

Richard Myers, M.A., division chairman; Larry Christiansen, M.S.; Mrs. Esther Crampton, M.A.; Mrs. Jo Ann Sanders, M.A.

## **TECHNICAL EDUCATION DIVISION**

Donald McClanahan, M.S., division chairman; Mrs. Kathleen M. Evans, B.S.; Walter Forsys, M.P.A.; Mrs. June Lubker, B.S.; Charles Macon, M.A.; Dan Rehurek, M.A.; James Sherman, M.S.

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# Accreditation

Cochise College is accredited by the Arizona State Board of Directors for Junior Colleges. Students who complete appropriate lower division courses with a grade of 3 or better are accepted with full credit on transfer to the University of Arizona, Arizona State University, Northern Arizona University, all the University of California campuses and other universities and colleges in the nation.

The college holds membership in the American Association of Junior Colleges, the Council of North Central Junior Colleges, and is a candidate for membership status with 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 all students interested in, and capable of, benefitting from such a program of higher education.

The quality and effectiveness of instruction offered by the college is important to all those interested in higher education — students, teachers, administrators, alumni, and the general public. It is the responsibility of the administration of the college to facilitate instruction and lead 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, and the community is essential for the realization of personal and institutional goals.

## **Aims and Objectives**

The main aims and objectives of Cochise College are:

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 assists him in the choice of a vocation.

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 full 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 and general education requirements 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 Junior Colleges, Cochise College may confer the Associate in Arts and the Associate in Science degrees on those students completing 60 units in prescribed courses with a 3.000 or better average. Either transfer or

non-transfer courses may be used to meet the 60 unit requirement. 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 are developed in accordance with the needs of business, industry, and the professions in the area, 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 evaluation of 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 "Two-Year 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, Cochise College offers

Evening College and Extension classes each semester. Detailed announcements concerning extension classes are made at the beginning of each semester through special publications.

Evening College classes parallel day courses in prerequisites, course content, time devoted to preparation of assignments, and examinations.

Students attend evening classes to prepare for a vocation, to gain a better education, and to satisfy lower division 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 evening 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 parttime evening students as for full-time students; namely, 60 units in the pre-

scribed courses with a grade point average of 3.000 or better. Physical education and Psychology 1, however, are not required. Certificated programs have specialized requirements.

## **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.

The College is a community center — a gathering place for many community functions; it often serves as a catalyst for cultural development of the community. In accordance with the policies of the Governing Board, the College facilities are made available for use by authorized community groups when such use does not interfere with the College educational program.

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, and a program of non-credit courses.

**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.**



# **Admissions**

Prospective students and their parents are encouraged to visit the campus to discuss educational plans with the Director of Admissions. The Office of Admissions is open Monday through Friday and also on Saturday mornings during the months of March, April and May. Applications for admission may be obtained from the college admissions office or from Arizona high school principals or counselors.

## **Orientation**

All entering full-time freshmen and transfer students are required to participate in the Orientation to College program, which is designed to familiarize the student with his new college environment. Students are introduced to the philosophy and objectives of the College as they relate to available curricula, staff and facilities. Other facts of orientation to the college are presented to the students during the semester.

## **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**

As a supplement to the American College Testing (ACT) entrance tests, the student and counselor may decide additional individual testing

is needed. 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.

## Occupational 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 schools. The information includes entrance requirements, majors offered, courses offered, expenses and general information about the institutions.

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.

## Student Union

The "living room" of the campus offers an opportunity for students and faculty to gather and discuss the problems of the day in an informal atmosphere. Meeting rooms are available as well as comfortable lounges, a recreation room, and various dining rooms. The offices of the Student Senate are in this building, as is the office of the Director of the Student Union.

Dining services provided by the Student Union include a "Rathskeller"-style snack bar, a private dining room, and a large, well-equipped dining room which has a seating capacity of 500. Resident students are offered a well-balanced menu featuring popular selections at each meal. Festive meals, steak nights and other unique monotony-breakers create a most pleasant experience in our boarding plan.

# Housing

Housing is considered 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 344 resident students. Each residence hall is under the supervision of a qualified resident director who is assisted by trained student proctors. 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, study lamp, two single beds, 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.

## 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, United Students Aid Fund Loans, 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 aid students should:

1. Complete Application for Admission to Cochise College including filing of all required transcripts with the Office of Admissions.
2. Complete the Arizona Financial Aid Application and return it to the Cochise College Financial Aids Officer. Only one application need be submitted for all types of financial aid. Priority will be given to applications received by April 1st. Applications for all

types of financial aid will be accepted and evaluated after April 1st only insofar as available funds permit.

3. Complete the Family Financial Statement (FFS) of the American College Testing Program (ACT). Designate Cochise College as a recipient. Send it directly to ACT with the appropriate fee for processing. Allow three weeks for FFS processing. These forms may be obtained from your local high school counselor or from the American College Testing Program, P. O. Box 767, Iowa City, Iowa 52240.

**Financial Aids Committee:** The committee is composed of five members, including the Financial Aids Officer, the Director of Admissions, an accountant from the Office of Business Affairs, a faculty member and a student appointed by the Student Senate. It is the function of this committee to screen applications and determine recipients of financial aids with the exception of athletic and band grants-in-aid, and out-of-state tuition waivers.

**Scholarships:** Both new and returning full-time students are eligible for scholarships. The majority of scholarships are awarded to graduates of Cochise County high schools and are supported by interested groups and individuals.

The following criteria are used in determination of scholarship recipients:

1. Stipulations of the donor take precedence in all cases.
2. Grade average and academic rank are of primary importance. In no instance will the grade average be less than 3.000 or academic rank be less than top 2/5 of class.
3. Financial need will be of importance in awarding of all scholarships with the exception of Valedictorian-Salutatorian.

**Grants-In-Aid:** Cochise College has a number of grants-in-aid available in the areas of athletics and music.

Athletic grants-in-aid are administered by the Director of Athletics. Recipients of music grants-in-aid are selected by the Music Department and awards administered through the Financial Aids Officer.

**Tuition Waivers:** A limited number of tuition waivers of two types are available to out-of-state students.

Recipients of *academic* tuition waivers are selected by the Director of Admissions.

Recipients of *athletic* tuition waivers are selected by the Director of Athletics.

**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.

Cochise College participates in the government-sponsored College Work-Study Program.

Typical student employment includes work in the Learning Resources Center, dining hall, building and grounds crew, switchboard operator, secretarial work, and proctorships in the residence halls.

**Cochise College Loans:** The fund makes loans available to full-time students. Eligibility includes maintenance of a 3.000 average. After one year an interest charge is assessed.

**United Students Aid Fund:** These are low cost, long term loans and are guaranteed by the USAF Corporation.

Full-time students who show evidence of academic promise are eligible. Up to \$1,000 a year may be borrowed through a participating bank. Repayment begins the first day of the 10th month after the student leaves school. The student pays 3% simple interest.

The participation of Cochise College in this program has been made possible by the Cochise County Medical Association.

### **Educational Opportunity Grants:**

Cochise College awards Federal Education Opportunity Grants to a limited number of students who exhibit exceptional financial need.

To be eligible, a student must also show academic or creative promise.

Grants range from \$200 to \$800. They are administered as part of a financial aids "package" and must be matched by scholarships, loans, or earnings from campus employment.

## Health Services

The college maintains 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.

## Student Activities

The college encourages student participation in extra-curricular activities, campus organizations, and intramural and intercollegiate athletics to promote leadership and cooperative planning experience and social and skill development.

**Student Government:** The Student Senate provides a representative governing body for the Associated Students, of which every full-time student is a member. The Student Senate assists in the encouragement of responsible student leadership and participation, the coordination of campus organizations, the establishment of policies and regulations affecting student affairs, and the planning, coordination and supervision of student activities.

**Organizations:** Student organizations include Adventurers Club, Baptist Student Union, Campus Guides, Cheerleaders, Chess Club, Delta Epsilon, Deseret Club, Distributive Education Clubs of America, Drama Club, El Recuerdo (Yearbook), Freshman Class Officers, Future Spanish Teachers, Gymnastics Club, Heliograph (Newspaper), Newman Association, Residence Hall Councils, Rifle and Pistol Club, Rodeo Club, Senior

Day Steering Committee, Song Leaders, Sophomore Class Officers, Student National Education Association, Student Orientation Core, United Protestant Group, Weightlifting Club, Women's Athletic Association, Wrestling Club, Young Democrats, Young Republicans, YWCA.

**Activities:** Student activities include Apache Day, Athletic Events, Band, Christmas Formal, Choir, College Hour Programs, College Rodeo, Cultural Film Series, Drama Productions, Fall Bonfire, Informal Dances, Intramural Sports, Parent's Day, Red and White Ball, Senior Day Visitation, Student Orientation Program,

**Cultural Programs:** A College Hour each week provides for the presentation of visiting lecturers, recital groups and student film series. The College Public Events series and a student film series supplement these programs. The college also provides for the admission of students to Douglas Community Concert Association presentations.

**Intramurals:** The college has an active intramural program with participation in touch football, basketball, volleyball, table tennis, badminton, tennis, golf, cross country run, bike-a-thon, wrestling, gymnastics, bowling, judo, handball, softball, archery and swimming.

**Intercollegiate Athletics:** The college participates in the Arizona Junior College Athletic Conference. Included are baseball, basketball, golf and tennis, and it is hoped in the near future other sports will be added. Intercollegiate competition in tennis is offered for women also. The Cochise College Apaches have been strong contenders in all sports since the college opened in the fall of 1964.

Cochise College annually schedules the toughest junior college competition available in the Southwest, plus top freshman squads of four-year colleges and universities in Texas, New Mexico and Arizona.

Intercollegiate track and field and wrestling are slated to be added in the near future to the college athletic scene.

## Registration and Records

The Student Personnel Office is responsible for the registration, grade reports, transcripts and academic and personnel records of each student.

# Placement

The placement officer of the college will assist graduates in meeting contacts and arranging interviews with prospective employers in their field of specialization, or in making application for admission to a four-year college or university if they have completed a transfer program.



# Academic Council

The enforcement, interpretation, and waiving of academic regulations are the responsibility of the Academic Council. Membership includes the Dean of Academic Curricula, the Dean of Occupational Curricula, 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

<b>Freshmen:</b>	Students with fewer than 28 passing units of college credit.
<b>Sophomores:</b>	Students with 28 or more passing units of college credit.
<b>Full-time Students:</b>	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:

1 - SUPERIOR	
2 - GOOD	
3 - AVERAGE	
4 - POOR	
5 - FAILURE	
W5 - WITHDREW FAILING	Indicates withdrawal from the class after the third week with below a 3 in the course. A grade of "W5" is computed in the student's grade point average as a 5, or failure.
W0 - WITHDREW	Indicates that the student withdrew from the course before the end of the third week or that he was earning a grade of "3" or better if the withdrawal was after the third week. A grade of "W0" is not computed in the student's grade point average.

## **N0 - 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 "N0" to a "5" on the permanent record. The grade of "N0" is not computed in the student's grade point average.

## **AUDIT -**

Courses may not be taken for audit.

# **Grade Points**

Semester grades are assigned grade points as follows:

- 1 - 1 grade point per unit earned
- 2 - 2 grade points per unit earned
- 3 - 3 grade points per unit earned
- 4 - 4 grade points per unit earned
- 5 - 5 grade points per unit earned
- W5 - 5 grade points per unit earned

Thus, a three-unit course with a grade of "4" would earn (3x4) 12 grade points.

The total grade points accumulated by a student are divided by the total of units attempted (exclude "W0" and "N0" 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**

High Honors are awarded to graduating students who receive a grade point average of 1.5 or above in all work taken at Cochise College, and Honors are awarded to those whose grade point average is between 1.51 and 2.0.

# **Unit Load Limitations**

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

# Academic Probation

All students who have attempted nine or more units at Cochise College and have not attained a cumulative grade point average of 3.000 or better are 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 3.000 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 points at the end of any semester are more than ten below the number required for a 3.00 average without a period of probation.
2. A student while on Academic Probation may be academically suspended if his cumulative grade points are more than ten below the number required for a 3.000 average.
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.

## Readmission Following Academic Suspension or Dismissal

A student who has been academically suspended for the first time may return after a period of one regular semester has elapsed, excluding summer sessions. A student who has been academically dismissed may petition the Academic Council for readmission.

A student readmitted following academic suspension or dismissal will be placed on CONTINUED PROBATION.

# 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 4 or 5 (D or F) will not be accepted for credit.
2. Students with a GPA below 3.000 may be admitted upon a petition to the Academic Council and, if admitted, will be placed 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.

## Grade Report

Each student receives a progress report at mid-semester and a grade report at the completion of the semester. Only final semester grades are recorded on the student's permanent record.

The grade reports of unmarried students under 21 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 Personnel Office.

A copy of the semester grade report of freshmen students under 21 years of age is mailed to the high school from which the student graduated.

## Final Examinations

Final examinations are given in all 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; exceptions may be granted by the Academic Council but only on the basis of a written petition and for compelling reasons.

## Change of Grade

A grade once reported to the Student Personnel Office may be changed only upon authorization of the faculty member issuing the grade and the approval of the Dean of Instruction or the Dean of Occupational Curricula.

# Repetition of Courses

1. If a student earns a grade of 4 or 5, 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 but are included in computing the cumulative grade 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 3 or better.

## Change of Program

Students are expected to carefully arrange their academic schedule 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 Personnel Office.

Courses may not be added to a program after the first week of classes. When a course is added a \$5 fee will be assessed for each course added unless it is determined that the change is due to administrative reasons.

A course may be dropped at any time during the first three weeks without penalty and the grade assigned will be "W0", withdrew. Courses dropped after the first three weeks will also receive a grade of "W0" if the student has a 3 or better average at the time of the drop, but if the average at the time of the drop is 4 or 5, the final grade will be "W5" (Withdrew Failing).

## 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 a proper dismissal. A student will receive a "W5" 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 4, 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.

## 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 maximum of four 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. Servicemen will not be exempt from physical education courses, unless they are 24 or older, or are physically unqualified as certified by a licensed physician.

## Notice of Intent to Graduate

A notice of Intent to Graduate must be filed by each student who wishes to receive the Associate in Arts or Associate in Science degrees from Cochise College. The notice should be filed at the beginning of the semester in which the student plans to complete requirements for graduation. Requirements may be completed during any semester, but the degree will not be conferred until the graduation ceremony is held at the close of the Spring semester. (See also Graduation Fee Requirement on page 31).

## Graduation Requirements

Cochise College will grant the degrees of Associate in Arts or Associate in Science to all graduates of a two-year curriculum.

### **Requirements for graduation with the Associate Degree are:\***

1. Completion, with a cumulative GPA of 3.000 or better, of at least sixty passing units.
2. A minimum of fifteen units, with a grade average of 3.000 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. Fulfillment of the following basic requirements:  
At Cochise College the General Education courses are organized within the areas of English, Humanities, Natural Science, Social Science, and Physical Education. The number of required credit

hours in General Education courses may vary slightly according to the specific program a student selects.

The General Education requirement for the Associate in Arts Degree is thirty-eight hours, to be distributed as follows:

- A. Psychology 1\* ..... 1 Unit  
Communications English 3\*\* ..... 6 Units  
Speech 3  
Social Science ..... 6 Units  
Natural Science ..... 3 Units  
Humanities or Fine Arts ..... 3 Units  
Physical Education ..... 4 Units
- B. An additional fifteen hours of General Education may be selected from courses offered in the above areas. Electives are provided to assist transfer students in meeting the requirements of the particular university to which they plan to transfer. The student should consult a program advisor representing the department which offers these courses. Additional General Education courses may be taken as electives.

A full-time student must be enrolled in a mathematics course until he has completed Math 1X or has demonstrated competence at this level.

Students in technical, vocational or semi-professional programs, as well as students in pre-professional science programs whose General Education requirements are somewhat different, should consult with their program advisors for appropriate requirements.

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

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\* For all full-time first semester students.

\*\* A full-time student must be enrolled in an English course or until he has completed at least English x or demonstrated competence at this level.



# Admission Requirements

1. All high school graduates are eligible for admission.
2. Non-high school graduates 19 years of age or older who demonstrate to the satisfaction of College authorities that they are able to profit by the instruction may also be admitted. Students who are not high school graduates or have not obtained a General Education Development (GED) Certificate of High School Equivalency are admitted on probationary status. Probationary status is removed after the student has earned 15 hours of credit with a grade point average of 3.000 or better.
3. Transfer students from other colleges are admitted provided they have met Cochise College's scholarship standards. Students disqualified from another college will not be admitted for at least one semester, and then only by petition to and approval of the Academic Council. This petition, along with the other admission credentials, must be submitted in accordance with the dates on the College Calendar.
4. Superior seniors in high school may be admitted for one course upon the recommendation of the high school principal.

## Admission Procedures for Full Time Students

### Application

An application blank may be obtained by writing or calling the College Admissions Office. Applicants should submit applications and transcripts well in advance of the beginning date of the semester for which they wish to be admitted. Those who fail to supply accurate and complete information will not be considered for admission nor allowed to remain in attendance if discrepancies are discovered after enrollment.

Students applying for admission to Cochise College are required to provide the following:

1. Completed Application for Admission.

2. Official transcript of high school credits signed and forwarded by the principal to the Admissions Office of Cochise College.
3. Scores from the American College Tests (ACT) submitted to the College before being accepted.
4. A medical examination (not required of part-time students).
5. Official transcript and statement of honorable dismissal sent directly to Cochise College from each collegiate institution attended after high school graduation.

## Admission Procedures for Part-time Students

Admission *requirements* are similar for both day and part-time students. However, students wishing to enroll for part-time classes *only* follow different admission *procedures* and should secure a *Schedule of Classes* for detailed instructions. Day students wishing to enroll in evening classes must do so at the time of enrollment for day classes.

## 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 appointment 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. A student who has been disqualified from the College must submit an application in accordance with the dates on the Cochise College Calendar in order that it may be reviewed by the Academic Council.

## Registration

Counseling and registration take place during the month prior to the opening of classes of each semester. (See the Calendar at the front of the catalog.) Students register only after receiving program approval from a counselor. Registration after the first week of instruction will not be permitted. See the *Schedule of Classes* for detailed information.

# **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 under the conditions above.

## **Residence In High School Districts Not Maintaining A Junior 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 Junior College**

Students residing in counties in Arizona that maintain a junior college may enroll in Cochise College but must pay the tuition established by the State Board of Directors for Junior Colleges.

## **Out-of-State Students**

Out-of-state students may enroll in Cochise College but must pay the tuition established by the State Board of Directors for Junior Colleges for non-residents and an application fee of \$5.

## **Foreign Students**

Foreign students are welcome at Cochise College. To be admitted, foreign students should provide evidence of the equivalent of high school graduation, demonstrate adequate proficiency in English to profit from regular college classes, and show evidence of sufficient funds to pay all expenses for one academic year.

## **Veterans**

Cochise College has been approved for veterans training under all federal and Arizona laws. The Director of Admissions acts as the veterans' coordinator. Veterans should confer with Director of Admissions at the time of registration concerning educational benefits. Petition for evaluation of military experience may be filed with the Office of the Dean of Students following completion of a minimum of 12 units in attendance at Cochise College.

# Fee Schedule

## Semester Fee Schedule

### Tuition\*

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

*Per Semester*

Residents of Cochise County ..... No Charge

Military personnel and their dependents  
living in Cochise County ..... No Charge

Residents of counties other than Graham,  
Maricopa, Yuma (home county pays  
Cochise College \$300.00 per semester) ..... No Charge

Residents of Graham, Maricopa, and  
Yuma Counties (these counties  
have their own two-year college) ..... \$300

Residents of other states & foreign countries ..... \$325

#### B. Part-time Students (1-11 units):

County residents including military  
personnel and their dependents ..... No Charge

Residents of other states & foreign countries:

1 - 6 units ..... No Charge

7 - 11 units ..... \$20 per unit

#### C. Summer Session (after 7-11 units):

Residents ..... \$10 per unit

Non-residents ..... \$20 per unit

\* See "REFUNDS" concerning Refund Schedule.

## Other Fees and Charges

### Student Services Fee

A. Full-time Students (12 or more units): ..... \$50

B. Part-time Students (1-11 units):

1 - 6 units ..... \$15

7 - 11 units ..... \$30

Out-of-State Student Application Fee ..... \$5

A fee of \$5 must accompany the  
Application for Admission.

**Room and Board .....\$365**

All full-time resident students who are single and under 21 years of age are required 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. College housing is not available for part-time students.

**Room Deposit .....\$40**

The room deposit of \$40, which does not apply toward room and board fees, should accompany the Application for Admission of those who plan to live in college housing.

### **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 half-semester basis as follows:

- (a) One-half of the semester room and board payment due upon registration for classes.
- (b) Second half of semester room and board payment due on or before the Monday of the Sixth (6th) week of College scheduled classes.

The board payment provides a seven (7) day meal ticket for the semester with twenty (20) meals each week when classes are in session.

### **Late Registration**

Students registering after the close of the announced registration dates will be charged a late registration fee of \$5.

### **Graduation**

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.

### **Payment of Fees for All Students**

All semester fees will be paid in full at the time of registration. However, arrangements may be made to pay the room and board fee on a half-semester basis.

## **Tuition Refunds**

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

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

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

## **Student Service Fee Refunds**

Student services fees are non-refundable after the first day of classes.

50% if withdrawal is prior to the first (1st) day of college scheduled classes; no refund thereafter.

## **Room and Board Refund**

Students who officially withdraw from the college before the completion of a semester will receive a pro rata refund of the unused portion of the payment as per the following schedule:

<i>Withdrawal prior to Friday of:</i>	<i>One-half Semester Payment \$182.50</i>	<i>Full Semester Payment \$365.00</i>
1st Week	\$152.50	\$335.00
2nd Week	122.50	305.00
3rd Week	92.50	275.00
4th Week	62.50	245.00
5th Week	32.50	215.00
6th Week	None	185.00
7th Week	None	155.00
8th Week	None	125.00
9th Week	None	95.00
10th Week	None	65.00
11th Week	None	35.00
12th Week	None	None

## **Room Deposit Refund**

The \$40.00 room deposit is a guarantee against cancellation of the housing application and is not refundable unless the full semester(s) residency is completed and all financial obligations to the College have been met. Charges for damages will be deducted from the deposit refund. The room deposit is forfeited if there is:

Failure to give notification of room cancellation by the date specified:  
Fall Semester, all students—thirty days before classes begin.

Spring Semester

New students—thirty days before classes begin

Continuing students—Saturday prior to beginning of classes

Failure to follow formal and prescribed check-out procedures when departing from assigned residence hall.

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.

## Housing Regulations

### General

All students under the age of 21 are required to live in college residence halls or in the home of parents, guardians, or relatives, if they are commuting students.

Students living in college residence halls are required to carry an academic load of twelve or more units.

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 21, 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.

## **Room and Board Payments**

Students may pay the full room and board payment for the semester at the time of registration or may pay on a half-semester basis as follows:

- (a) one-half of the semester room and board payment on the day of registration for classes.
- (b) second half of semester room and board payment due on the Monday of the eighth week of classes.

The board payment provides a seven-day meal ticket for the semester with 20 meals each week when classes are in session.



# Occupational Programs

## Transfer Programs

Students may enroll in Cochise College in one of several courses of study. It is the purpose of the College to present as broad a curriculum as possible in order to meet both community and regional needs, and also to give the general, specialized, and technical training so necessary in our increasingly complex society.

Students who enroll with one purpose will frequently change their objectives. It is the philosophy of this institution that all fields are worthy occupational areas for the individual, and all instructors and counseling personnel assume responsibility to assist the student in finding the educational program best suited to his interests and abilities. Transfer from one program to another will always be made if it seems desirable.

**Selection of a Major:** The selection of a major is an indication of the goal toward which the student concentrates his efforts, whether it be mastery of a field of knowledge or development of salable skills. If a student is undecided about his major, he may find assistance in making a decision by studying further this section of the catalog.

# Occupational Programs

Occupational programs at Cochise College are intended for the student who wishes to extend his education by completing two years of college.

Occupational programs in Middle Management, Law Enforcement, Practical Nursing, Office Careers, Medical Secretarial Studies, Medical Record Technology, Drafting Technology, Civil Technology, Welfare Assistant, Data Processing, Electronics, Aviation 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. (Information relating to additional occupational curricula may be secured through the Office of Admissions.)

Upon completion of the required two years of studies, the student will receive an Associate in Arts or Science degree. The College Placement Bureau will assist graduates in finding permanent full-time positions in fields of specialization.

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.

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.

# CURRICULUM GUIDES FOR

## Business and Office Technologies

### 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.

Freshman Year		Total Hours	Sophomore Year		
				With Intern- ship	Without Intern- ship
General Education Requirements		15	General Education Requirements	6	15
Business Administration Requirements		9	Business Administration Requirements	6	9
Mid-Management Core:			Mid-Management Core:		
Principles of Marketing		3	Problems of Distribution	3	3
Merchandising		3	Seminar: Trends & Practices in Marketing & Management	3	3
			*Internship	12	0
Total Units		30	Total Units	30	30

At least 60 units required for graduation.

\*Internship (on-the-job) training may be taken on a full-time basis during the student's fourth semester (total 12 hours + 3 hr. Seminar) or during the student's third and fourth semester. The two semester internship is dependent upon the student being placed locally in order that he (or she) may also attend classes on campus at Cochise College. During the two semester internship, the student would receive 6 hours credit each semester for on-the-job training.

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

### **Hotel-Motel Management**

Second year students in the Mid-Management program who are interested in the field of hotel-motel management, will concentrate on studies of a specialized nature. Arrangements will be made for the student to enroll in correspondence courses from the Kellogg Institute at Michigan State University designed by the Hotel-Motel Institute. Successful completion of these requirements would also result in a diploma from the American Hotel-Motel Institute. These studies are coordinated with normal courses of study within the Mid-Management program.

### **Aviation Administration**

Graduates of this program will enter the aviation industry as middle management trainees with airlines, aircraft sales or in airport management. Special studies in aviation and related fields will be coordinated within the middle management curriculum.

## **Secretarial Studies**

Recent advances in business have opened a variety of opportunities in office careers. Interesting secretarial positions are available in govern-

ment, 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.

#### *Suggested Sequence*

First Semester				Cr	Second Semester				Cr
Bus	7	Intermediate Typing		3	Bus	8	Advanced Typing		3
Bus	10	Elementary Shorthand		3	Bus	11	Intermediate Shorthand		3
Bus	18	Calculating Machines		2	Bus	62	Office Procedures		3
Engl	1	English Composition or			Engl	2	English Composition or		
Engl	8	Written Communications			Spch	3	Fundamentals of Speech		3
		& Reports		3	PE	2	Physical Education		1
Psych	1	Psychology		1			Fine Arts Elective		3
PE	1	Physical Education		1					—
		Social Science Elective		3					
				—					
				16					16
Third Semester				Cr	Fourth Semester				Cr
Bus	4	Business Math or			Bus	31	Business Law		3
Bus	1a	Principals of Accounting		3	Bus	64	College Secretarial		
Bus	12	Advanced Shorthand		3			Procedures		3
Engl	8	Written Communications			Bus	23	Personnel Psychology		3
		& Reports or Elective		3	PE	4	Physical Education		1
PE	3	Physical Education		1			Elective		3
		Elective		3			Science Elective		3
		Social Science							
		Elective		3					—
				—					
				16					16

At least 60 units required for graduation.

A demand for the properly-educated Bi-lingual Secretary exists in Southern Arizona. Special courses being developed will provide interested

students with secretarial skills in the English language and Spanish language. Law offices, insurance and real estate firms, government agencies and other employers are continually searching for secretarial graduates with this type of background.

## 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 position in the business office.

Required Core Program — Select areas A, B, and C, D, or E.

Course				Cr	or			
A.	Bus	6	Elementary Typing	6	D.	Bus	10	Elementary Shorthand
	Bus	7	Intermediate Typing			Bus	11	Intermediate Shorthand
	Bus	8	Advanced Typing			Bus	12	Advanced Shorthand & Transcription
B.	English X			3	or			
	English 8							
C.	Bus	4	Business Math	6	E.	Bus	4	Business Math
	Bus	1a	Accounting			Bus	18	Calculating Machines
	Bus	1b	Accounting			Bus	62	Office Procedures
								6

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

Note: Curricula for Medical Secretary and Medical Record Technician are in Health Technology section.

# Health Service Technologies

Health service and its related technologies is the fifth largest industry in the U.S. Many areas of employment are open to those interested in the health occupations. Each area is interesting and unique, yet all departments are interrelated. Development of a core curriculum at Cochise College serves as a base from which special technologies may depart.

## Practical Nursing

The Practical Nursing program requires three semesters of study (or the equivalent thereof) and is designed to prepare the student to function in a wide range of technical nursing skills under the supervision and guidance of the physician and professional nurse. Classes are held on campus and in local hospitals, and are closely interrelated to aid the students in developing and understanding nursing principles and skills. Upon completion of the program the student is eligible to take the state board examination for becoming a licensed practical nurse. This career program is open to men and women.

First Semester			Units	Second Semester			Units
Zoo	20	Human Anatomy & Physiology	3	Pnur	16	Mental Health	3
Pnur	12a	Fundamentals of Nursing	6	Pnur	14a	Medical-Surgical Nursing	9
Math	1x	Fundamentals of Math	3	Pnur	10	Professional-Vocational Relationships	1
Engl	1	English Composition	3			Elective	3
PE	1	Physical Education	1			Physical Education	1
			—				—
			16				17

**Summer Session (Tucson Medical Center)**

Pnur	14c	Maternal-Child Nursing	8
Pnur	18	Advanced Professional Relationships	1
			—
			9

## 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, personal hygiene, anatomy, and general education subjects. The second year student will serve an internship in a large hospital. Graduates may find employment as medical secretaries or related workers with insurance companies, hospitals, or medical clinics.

*Suggested Sequence*

First Semester			Cr	Second Semester			Cr
Engl	1	English 1	3	Spch	2	Speech	3
Zoo	20	Human Anatomy & Physiology	3	Hlth	42	Hygiene	3
Bus	7	Intermediate Typing	3	*Bus	11	Intermediate Shorthand	3
PE	1	Physical Education	1	PE	2	Physical Education	1
Psych	1	Psychology	1	Bus	4	Business Math or	3
BHT	1	Basic Health Technology	3	Bus	1a	Principles of Accounting	3
			—	Bus	81	Medical Terminology	3
			14				—
							16



Third Semester				Cr	Fourth Semester				Cr
Bus	62	Office Procedures		3	Bus	95	Internship as Medical Secretary		16
Bus	23	Personnel Psychology		3					
Soc	1	Introduction to Sociology		3					
		Fine Arts Elective		3					
PE	3	Physical Education		1					
Bus	83	Medical Transcription		3					
				16					

\*Shorthand, Hygiene suggested, but not required.

At least 60 units required for graduation.

*AS degree 60 units*

*Ch. 100*

## Medical Record Technician

One of the most important members of the hospital team is the medical record technician, the historian of patient care. She assists in organizing and controlling the mass of reports, which, once assembled, accurately state in uniform, scientific language, life's most anxious moments. The need for qualified people in this specialized field far exceeds the supply. Second year students will serve an internship in cooperation with the Tucson Medical Center.

First Semester				Cr	Second Semester				Cr
Engl	1	English 1		3	Spch	2	Speech		3
Zoo	20	Human Anatomy & Physiology		3	Hlth	42	Hygiene		3
Bus	7	Intermediate Typing		3	PE	2	Physical Education		1
PE	1	Physical Education		1	Bus	81	Medical Terminology		3
Psych	1	Psychology		1	Bus	85a	Medical Record Science		3
BHT	1	Basic Health Technology		3	Bus	72	Intro to Data Processing		3
				14					16

Third Semester			Cr	Fourth Semester			Cr
Soc	1	Introduction to Sociology	3	Bus	97	Internship as Medical Record Technician	16
Bus	62	Office Procedures	3				
		Fine Arts Elective	3				
PE	3	Physical Education	1				
Bus	83	Medical Transcription	3				
Bus	85a	Medical Record Science	3				
			—				
			16				

Shorthand, Hygiene suggested, but not required.

At least 60 units required for graduation.

## CURRICULUM GUIDES FOR

# Industrial Technologies

## Aviation Technology

### AVIATION ADMINISTRATION:

Graduates of this program will enter the aviation industry as mid-management trainees with airlines, aircraft sales or in airport management. The curricula includes 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 students to complete

the Airman Certification Requirements of the Federal Aviation Administration.

## **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.

A special college catalog supplement will describe these developing programs in Aviation Technology in more detail.

## **Civil Technology**

The education of Civil Technicians at Cochise College is planned to most efficiently produce a graduate who will be effective and will be in demand in civil engineering and building construction. The technicians trained in this program may assist the civil engineer in planning, directing, inspecting and supervising construction projects of various kinds. Graduates may be employed as surveyors, construction supervisors, estimators, engineering aides, materials salesmen or soil mechanics lab technicians.

First Semester			Cr	Second Semester			Cr
CT	1	Orient to Civil Technology	2	CT	7	Plane Surveying	4
DT	22	Technical Drafting	3	Math	20	College Algebra	3
Math	24	Trigonometry	3	Spch	3	Fundamentals of Speech	3
Engl	1	English Composition	3	PE	2	Physical Education	1
Psych	1	Psychology	1	CT	65	Intro to Hydraulics and Hydrology	2
PE	1	Physical Education	1				—
Geol	51	Physical Geology	3				13
			—				
			16				
Third Semester			Cr	Fourth Semester			Cr
CT	62	Route Surveying	3	CT	51	General Land Surveying	3
Phys	12	Foundations of Science	3	CT	55	Soil Mechanics	3
Engl	8	Written Communications & Reports	3	PE	4	Physical Education	1
PE	3	Physical Education	1			Social Science Elective	3
CT	50	Elements of Construction	3			Elective	3
CT	52	Materials of Construction	3			Fine Arts Elective	3
			—				—
			16				16

At least 60 units required for graduation.

## 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**

<b>General Education Requirements</b>		
Mathematics Requirement (Minimum of 7 hours of General Education total)		<b>16 hrs</b>
<b>Other Technical Subjects:</b>		
Calculating Machines		<b>2 hrs</b>
<b>Drafting Technology Core:</b>		<b>12 hrs</b>
*Mechanical Drawing	(3)	
Technical Drafting	(3)	
Applied Descriptive Geometry	(3)	
Drafting & Design for Electricity-Electronics	(3)	
		<hr/> <b>30 hrs</b>

## **SOPHOMORE YEAR**

<b>General Education Requirements</b>		<b>8 hrs</b>
<b>Other Technical Subjects:</b>		<b>7 hrs</b>
Plane Surveying	(4)	
Elective	(3)	
<b>Drafting Technology Core:</b>		<b>15 hrs</b>
Machine Drawing	(3)	
Technical Design	(3)	
Structural Drafting	(3)	
Architectural Drafting & Design	(3)	
Topographical Drafting	(3)	
(May be taken as an elective)		
		<hr/> <b>30 hrs</b>

\*Only for those students who have not had Mechanical Drawing in high school. Those having had at least one year of drafting in high school may enroll in Technical Drafting as the first course.

# **Law Enforcement**

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 programs.

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 problems. Women are finding careers in law enforcement challenging, too, especially in youth and investigative work. The value of a college education cannot be overemphasized for the alert young man or woman who plans to make a career in law enforcement.

#### *Suggested Sequence*

First Semester				Cr	Second Semester				Cr
LE	60	Intro to Law Enforcement		3	LE	62	Police Organ & Adm		3
Hlth	70	First Aid & Safety ✓		2	LE	62a	Cadet Training		1
Engl	1	English Composition		3	Spch	3	Fundamentals of Speech —		3
*Bus	6	Elementary Typing or			Psych	2a	Elementary Psychology		3
Bus	7	Intermediate Typing ✓		3	Art	6	Basic Drawing		3
PE	1	Physical Education		1	Soc	12	Juvenile Delinquency		3
Psych	1	Psychology		1	PE	2	Physical Education		1
Soc	1	Intro to Sociology		3					—
				—					17
				16					
Third Semester				Cr	Fourth Semester				Cr
LE	64	Police Patrol Functions		3	LE	70b	Criminal Investigation		3
LE	64a	Cadet Training		1	LE	72	Police Arsenal-Weapons		1
LE	70a	Criminal Investigation		3	LE	74	Arrest, Search & Seizure		3
LE	66	Criminal Law		3	PE	72	Defensive Tactics		1
Engl	8	Written Communications & Reports		3	LE	61	Criminology		3
PE	3	Physical Education		1			Elective —		3
				—					—
				14					14

\*Demonstrated typing ability will suffice to replace Bus 6 as a requirement. Bus 7 is recommended but not required.

Cadet Training required providing necessary arrangements can be made with local police agencies.

At least 60 units required for graduation.

## Electronics Technology

## Data Processing Technology

A special College Catalog supplement will describe these developing programs in more detail.

# Transfer Programs

For the student who wishes to extend his education further 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 for junior standing. Catalogs of major universities and colleges are available in the Library or the Student Personnel 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 3.000 or better.

# **ROTC Program**

Under the provisions of the ROTC Vitalization Act of 1964, junior college men are now eligible to immediately 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.



# **Courses of Instruction**

## **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. 1a General Biology.

Courses carrying a letter designates X, viz. 1X Fundamental Mathematics and Y1, viz. 1Y 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, or 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.

# Anthropology

## **1 INTRODUCTION TO ANTHROPOLOGY 3 UNITS**

**Prerequisite: None.**

This introductory course offers both theoretical and practical insight into the origin and antiquity of man. The student will gain understanding of concepts and principles which are a vital part of the field of anthropology. The lectures, texts and outside readings emphasize both research and discussion of the subject. These materials are supplemented with class discussions, colored slides and other visual illustrations.

## **2 INTRODUCTION TO ANTHROPOLOGY 3 UNITS**

**Prerequisite: None.**

An introductory course in which the student will learn how man advanced from a cultureless way of living to the complex cultural world of today. The student will gain further understanding of anthropological concepts and principles necessary to the field of anthropology. Lectures, texts, outside reading, colored slides, artifacts, and other visual materials will be used to help the student better understand his way of life.

## **10F ARCHAEOLOGICAL FIELD SESSION 3 UNITS**

**Prerequisite: Permission of the Director.**

The student will participate in the excavation of a pre-historic Indian site. Through excavation of the site the student can gain a practical knowledge of Southwestern prehistory, archaeological concepts, techniques, and methods. Experience in classification, preservation and laboratory work is part of the course.

## **10T TOUR THROUGH INDIAN COUNTRY 3 UNITS**

**Prerequisite: Permission of Director.**

This conducted tour through the Indian Country will give the student first hand information about the Indians of the Southwest. Lectures will be given by the director, Indian traders, Indians, National Park Service personnel and tribal leaders, etc. Villages and homes will be visited by the group, and various demonstrations and ceremonies will be observed along the tour.

**25****CULTURAL ANTHROPOLOGY****3 UNITS****Prerequisites: Anth. 1, 2; or Soc. 1, 2; or Permission of Instructor.**

This course is designed to give the student a perspective of the influence of culture upon man's way of life so that they will better understand the people and the world in which they live. By concentrating on our own culture, the student will learn basic anthropological principles which apply to any other culture throughout the world. Lecture, texts, outside reading, visual aids, and field trips will be used to help the student better understand the world about him.

**26****CULTURAL ANTHROPOLOGY****3 UNITS****Prerequisites: Anth. 1, 2; or Soc. 1, 2; or Permission of Instructor.**

A course in which the student studies various types of cultures found throughout the world. Both primitive and advanced peoples will be the topics of discussion. In this course the student can see the implications and results of cultural spread, loss and reformation—the social disorganization, reorganization and stability—and their influence on man's way of life. Lectures, reading, visual aids, and field trips all emphasize these implications.

**35****INTRODUCTION TO ARCHAEOLOGY****3 UNITS****Prerequisites: Anthro. 1, 2 or Permission of Instructor.**

This introductory course offers the student both theoretical and practical experience in the field of archaeology. The student will learn how archaeologists reconstruct human history from the past through materials which they find. Such materials will be examined in class. This course teaches relevant data, techniques and services which are important tools to the archaeologist. Lectures, reading, audiovisual equipment, and field trips emphasize this approach.

**36****INTRODUCTION TO ARCHAEOLOGY****3 UNITS****Prerequisites: Anth. 1, 2 or Permission of Instructor.**

Anthropology 36 emphasizes practical experience in the field of archaeology for the student. The student will read reports of excavations and descriptions of life in prehistoric times which he will judge in the light of current scientific procedure and belief. Experience in the field and laboratory will introduce the student to archaeological techniques and methods. Lectures, audio-visual aids, field trips, and laboratory work are geared to the practical approach in this field.

**85                      NATIVE PEOPLES OF THE SOUTHWEST                      2 UNITS**

**Prerequisite: None.**

This course is a non-technical study of the prehistoric Indians of the Southwest. Basic theory, method and concepts, as they apply to Southwestern archaeology are part of the course content. The study is designed to give the student an insight into the ancient Indian ways of life through lectures, audiovisual media, and field trips.

**86                      NATIVE PEOPLES OF THE SOUTHWEST                      2 UNITS**

**Prerequisite: None.**

Anthropology 86 is a non-technical study of modern Southwestern Indian groups. Basic method, theory and concepts, as they apply to Southwestern ethnology, are part of the course content. Lectures, audio-visual aids, and field trips are designed to give the student an insight into the modern Indian way of life and an understanding of their present day problems.

## **Art**

**3                      BASIC DESIGN                      3 UNITS**

**Prerequisite: None.**

Through lecture, demonstration and studio experiences the student will acquire a knowledge of the basic elements of visual perception and organization, and he will demonstrate this knowledge and ability in two-and three-dimensional media.  
Lecture 2 hours, Studio 4 hours.

**6                      BASIC DRAWING                      3 UNITS**

**Prerequisite: None.**

Through lecture, demonstration and practical studio experiences the student will develop an understanding of and proficiency in representational drawing and expressive pictorial design.  
Lecture 2 hours, Studio 4 hours.

**7                      SURVEY OF WORLD ART**

**Prerequisite: None.**

Through lecture and discussion periods using slides, motion pictures, museum reproductions and other media the student will learn to analyze and to develop an appreciation for the art and architecture of Western civilization from pre-historic times through the Gothic era. He will demonstrate his ability to recognize and criticize major artists, sculptors, and schools of architecture of this period.  
Lecture 3 hours.

- 8 SURVEY OF WORLD ART 3 UNITS**  
**Prerequisite: None.**  
Through lecture and discussion periods using slides, motion pictures, museum reproductions and other media the student will learn to analyze and to develop an appreciation of the art and architecture of important Eastern cultures and Western civilization from the Renaissance to the present age. He will demonstrate his knowledge and awareness of the major national styles and movements.  
Lecture 3 hours.
- 30 TWO DIMENSIONAL DESIGN 3 UNITS**  
**Prerequisite: Art 3.**  
Through lecture and studio experiences, utilizing a variety of materials, the student will learn to manipulate, control, and structure pictorial space. The student will be expected to demonstrate his knowledge of both historical and contemporary approaches to composition and design.  
Lecture 2 hours, Studio 4 hours.
- 31 THREE-DIMENSIONAL DESIGN 3 UNITS**  
**Prerequisite: Art 3.**  
Through lecture and studio experiences, the student will inquire into the use of volume and mass relationships as they exist in space, and he will experiment with the use of various materials and produce work demonstrating his ability to establish visually meaningful relationships.  
Lecture 2 hours, Studio 4 hours.
- 45 BEGINNING FIGURE DRAWING 3 UNITS**  
**Prerequisite: Art 6 or permission of the professor.**  
The student will practice drawing of the human figure, with the emphasis on the organic form, relationships, motion, rhythm, and gesture, with a secondary emphasis on the figure in its environment.  
Studio 6 hours.
- 65 BEGINNING COMMERCIAL DESIGN 3 UNITS**  
**Prerequisite: Art 3**  
Through lecture and studio experiences the student will study the principles of commercial design and the techniques of advertising layout, concentrating on practical application. He will demonstrate his ability in various commercial design problems and his understanding of the tools and materials in various fields of advertising.  
Lecture 2 hours, Studio 4 hours.

**Prerequisite:** Art 3, Art 6, or permission of the instructor.

Through lecture and studio experience the student will examine the principles and techniques of oil, water color, casein, and fresco painting, and he will demonstrate his ability and knowledge of these techniques by producing finished pictorial work in the above media.

Studio 6 hours.

## Biology

### **1a-1b GENERAL BIOLOGY**

**4-4 UNITS**

**Prerequisites:** 1a is a prerequisite for 1b.

By means of lectures and laboratory work involving instruments and dissection and observation of representative plants and animals, the student will learn the principles and concepts of biology and its historical development, with reference to organization, function, heredity, and evolution.

Lecture 3 hours, Laboratory 3 hours.

### **12 FOUNDATIONS OF SCIENCE: Biology**

**3 UNITS**

**Prerequisites:** Chemistry 12 and Physics 12 or equivalent courses.

The student will use microscopes, models, and living and preserved biological materials to understand the basic concepts of both animals and plants, with emphasis on the processes and interrelationships of living things with each other and their surroundings.

Lecture 2 hours, Laboratory 3 hours.

## Botany

### **1 GENERAL BOTANY**

**4 UNITS**

**Prerequisites:** Chemistry 12 or high school chemistry.

By observing and comparing living and preserved plants and microscope slides, supplemented by lectures and readings, the student will learn the basic concepts of botany as illustrated by plants, with emphasis on morphology and physiology. A basic course in botany for students of plant or animal science.

Lecture 3 hours, Laboratory 3 hours.

# Business

## **1a-1b PRINCIPLES OF ACCOUNTING (Programmed) 3 UNITS**

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

The student will demonstrate his understanding of the accounting procedures necessary for 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.

Lecture 3 hours, Laboratory 2 hours.

## **3a-3b INTERMEDIATE ACCOUNTING 3-3 UNITS**

**Prerequisites:** Business 1a and 1b.

The student will learn 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.

Lecture 3 hours, Laboratory 2 hours.

## **4 BUSINESS MATH (Programmed) 3 UNITS**

**Prerequisites:** None.

The student will listen, observe and perform in order to demonstrate, an understanding of the fundamentals of business mathematics and the ability to communicate with the "number language" of today's business world. This course is programmed learning in which the student advances at his own rate, benefitting 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 TYPING REVIEW 1 UNIT**

**Prerequisite:** Prior typing experience.

Through individualized instruction, case problems, and production work, the student will review skills and the mechanical functions of an electrical typewriter, review letter format, and practice tabulation and manuscripts.

Lecture-Laboratory 3 hours for 8 weeks.

## **6 ELEMENTARY TYPING 3 UNITS**

**Prerequisite:** None.

Student will develop basic typewriting skills and techniques. He will demonstrate a knowledge of 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.  
Lecture-Laboratory 4 hours.

**7 INTERMEDIATE TYPEWRITING 3 UNITS**

**Prerequisite:** Business 6, or high school typing, or permission of the professor.

The student will show 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.

**8 ADVANCED TYPING 3 UNITS**

**Prerequisite:** Business 7 or permission of the professor.

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

Lecture-Laboratory 3 hours.

**9 SURVEY OF AMERICAN BUSINESS 3 UNITS**

**(Programmed)**

**Prerequisite:** None.

The student will demonstrate his understanding of the fundamental characteristics and functions of modern business, with emphasis on possible career opportunities.

An extensive course outline will be given to the student with questions and programmed terminal performance tasks.

**10 ELEMENTARY SHORTHAND 3 UNITS**

**Prerequisite:** Business 6 or equivalent, a minimum grade of 3 in English, or permission of the professor.

The student will be able to write Gregg shorthand, dictated at a maximum speed of 60 words a minute. Taking dictation of familiar material and transcribing it accurately will demonstrate this ability.

**11 INTERMEDIATE SHORTHAND 3 UNITS**

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

The student will have developed dictation speed to a minimum of 80 words a minute on new material. This ability will be demonstrated by accurate transcription of new material at this speed and above.



- 12                    ADVANCED SHORTHAND AND  
TRANSCRIPTION                    3 UNITS**  
**Prerequisite:** Business 11, with a grade of 3 or better, or two years of shorthand in high school, or permission of the professor.  
The student will have further developed his ability to write dictated new material at a minimum speed of 100 words a minute. This ability will be shown by transcription into mailable, typewritten copy.
- 13                    SHORTHAND REVIEW                    1 UNIT**  
**Prerequisite:** Previous shorthand experience, approximately one year; Ability to communicate in written English.  
The student will redevelop and enforce previous ability to write shorthand, through the review of principles and theory of Gregg shorthand and 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.
- 14                    BILINGUAL SHORTHAND WORKSHOP  
(English-Spanish)                    1 UNIT**  
**Prerequisite:** Spanish proficiency at the second year level or by permission of the instructor and be enrolled in Business 11 or 12.  
Programmed instruction for students interested in qualifying as a bilingual (English-Spanish) stenographer. The student will demonstrate the ability to take dictation in both English and Spanish shorthand, and transcribe it into mailable copy in both English and Spanish. Minimum dictation rate will be 80 words a minute, with transcription speed of 30 words a minute. Repeatable for not more than *three* such credits.
- 15                    BILINGUAL TYPEWRITING WORKSHOP  
(English-Spanish)                    1 UNIT**  
**Prerequisites:** Spanish proficiency at the second year level, or by permission of the instructor, and be enrolled in Business 7 or 8.  
Programmed instruction for students interested in qualifying as a bilingual (English-Spanish) typist. The student will demonstrate the ability to type letters in Spanish, that have been written in English, and letters in English that have been written in Spanish, using correct production techniques. The student will be able to type straight copy at a minimum speed of 40 words a minute in Spanish. Repeatable for not more than *three* such credits.

**18                      CALCULATING MACHINES                      2 UNITS**

**Prerequisite: None.**

The student will develop a fundamental skill in operating rotary calculators, key-driven calculators, ten-key and printing calculators, and electronic computation equipment. Assessment of student development will be ascertained by observation and student production.

Lecture-Laboratory 2 hours.

**19                      BUSINESS STATISTICS                      3 UNITS**

**Prerequisite: Business math or permission of the professor.**

The student will demonstrate an understanding of descriptive statistics, averages, dispersion, elementary statistical inference, index numbering, time series, correlations, chi-square testing, point and interval estimation, and apply them to business and economic problems in workbook assignments and tests.

**21                      TAXATION PRINCIPLES AND PROCEDURES                      3 UNITS**

**Prerequisites: Business 1 a, 1 b 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.

Lecture 3 hours.

**23                      PERSONNEL PSYCHOLOGY                      3 UNITS**

**Prerequisite: None.**

The student will develop an elementary understanding of human behavior as it occurs in business and industry, by analyzing psychological views as they pertain to selection, training, evaluation, promotion, and supervision of employees. The student will evaluate consumer behavior through various methods in an attempt to better realize the effects of consumer research, advertising, and selling.

**31                      BUSINESS LAW                      3 UNITS**

**Prerequisite: None.**

Emphasis will be on the concepts and elements of contracts. In the areas of partnerships, corporations and Arizona Court procedures, practicing lawyers and judges proficient in the field will lecture. The student, through case analysis and information from lawyers, will acquire a sound, workable knowledge of basic legal principles involved in laws of con-

tracts, negotiable instruments, and property and business organizations to assist him in meeting daily problems of management, ownership, or employment in business.

**51                      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.

Lecture 3 hours.

**52                      MERCHANDISING    3 UNITS**

**Prerequisite: Bus. 55 or permission of professor.**

By means of listening, discussing, observing and preparing projects, the student will gain an understanding of buying motives and habits, the importance of the sales and the sales management function, the importance of sales promotion and inventory control. The student will develop the ability to successfully complete a sale and a sales promotion effort. The student will exhibit a knowledge of sound product planning, development, promotion and distribution policies.

**53                      SALESMANSHIP    3 UNITS**

**Prerequisite: None.**

Career opportunities in sales work, practical and psychological factors in selling, development of desirable sales personality, current techniques in conducting sales campaigns. Members of the class will engage in practical sales demonstrations.

Lecture 3 hours.

**55                      PRINCIPLES OF MARKETING    3 UNITS**

**Prerequisite: Approval of mid-management professor.**

The student will listen, discuss, observe and prepare projects in order to gain an understanding of the marketing function in the U.S. economy and international affairs. He will demonstrate his ability to apply this understanding to the specific marketing areas of: (1) making buying decisions, (2) initiating and improving operational procedures, (3) conducting market research, (4) determining the requirements of occupying a liaison position on the management team, (5) selecting channels of distribution and (6) interpreting trends in the field of marketing.

- 57 PROBLEMS OF DISTRIBUTION 3 UNITS**  
**Prerequisite: Bus 52 and 55 or permission of professor.**  
 By means of listening, discussing, observing, interviewing, writing and developing projects, the student will gain an understanding of personal development and the management function. The student will understand the abilities required to obtain a position in mid-management and to advance therein, develop an understanding of the "why" and "how" of company operations and will demonstrate their ability to analyze and solve marketing strategies using proper decision-making procedures.
- 59 PRINCIPLES OF ADVERTISING 3 UNITS**  
**Prerequisite: None.**  
 Role of advertising in distribution, including advertising media, advertising organizations, advertising copy, layout, and production.  
 Lecture 3 hours.
- 62 OFFICE PROCEDURES 3 UNITS**  
**Prerequisite: Business 6, or high school typing, or permission of the professor.**  
 The student will learn and experience general office procedures, including duties of office workers, staff members, and management. Personal qualifications, systems of filing, preparation of reports, handling mail, using the telephone, and operations of duplicating and calculating machines most commonly found in business offices will be stressed. Case problems, projects, and actual machine operation will be observed and evaluated to determine student development.  
 Lecture-Laboratory 3 hours.
- 64 COLLEGE SECRETARIAL PROCEDURES 3 UNITS**  
**Prerequisite: Business 11 or permission of instructor.**  
 The student will be able to function as a member of an office staff, and will have acquired a knowledge of office organization and layout, workflow, procedures, standards, personnel policies, and supervision procedures through progressive job situations. Completion of the jobs will demonstrate secretarial ability.
- 72 INTRODUCTION TO DATA PROCESSING 3 UNITS**  
**Prerequisite: None.**  
 The student will gain an overview of data processing, including the history and use of tabulating machines and electronic computers. He will be expected to define the role of

the punched card, describe the functions of various machines, and design elementary procedural flow charts and programs for electronic computers.

Lecture 3 hours.

**81 MEDICAL TERMINOLOGY 3 UNITS**

**Prerequisite:** Permission of the professor.

The student will become familiar with 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.

Lecture 3 hours.

**83 MEDICAL TRANSCRIPTION 3 UNITS**

**Prerequisite:** Business 8.

The student will be able to transcribe histories, physicals, admission and discharge notes, and surgical dictation through extensive practice on transcription equipment. (Students will be expected to visit the operating rooms to observe surgery during this time.)

Lecture-Laboratory 4 hours.

**85a MEDICAL RECORD SCIENCE I 3 UNITS**

**Prerequisite:** Zoology 20.

The student will become oriented to medical record-keeping theory and practice through participation in a study of the history of medicine, hospitals and medical records; a breakdown of professional ethics and personal conduct; a development of securing, evaluating and using medical records; and quantitative and qualitative analysis of the medical record. The student will prepare records used and pertinent reports.

Lecture 3 hours.

**85b MEDICAL RECORD SCIENCE II**

The student will demonstrate an understanding of the principles involved in numbering, filing and preservation of medical records; compiling statistics for hospitals; preparation of daily census reports; analysis of hospital service; special reports and classification of diseases.

The student will process and file forms and records used.

Lecture 3 hours.

**Prerequisite:** Bus 52-55-57. (Bus 57 may be taken concurrently with Bus 91a.) All students enrolled in Bus 91 ab must have prior approval of mid-management professor.

The student will work in a planned program of independent research, observation, study, and paid occupational training in selected business establishments. He will exhibit the ability to apply knowledge gained in the classroom to internship experiences. The student will participate in selecting the type of business in which the internship will take place. Businesses selected will include, but not be limited to, retail, wholesale, and service establishments such as department stores, supermarkets, warehouse and store operations, airport management, airline management, hotel-motel management, direct sales, and other areas of professional sales work.

**93****SEMINAR-TRENDS AND PRACTICES IN  
MARKETING AND MANAGEMENT****3 UNITS**

**Prerequisite:** Bus 52-55-57 or by permission of professor.

The student will listen, discuss, observe and develop projects in order to gain an understanding of (1) human and supervisory relations, (2) the procedures involved in establishing training programs and (3) the principles involved in the management of people, capital, merchandise, and time. He will apply supervisory relations techniques through on-the-job practice and/or simulated situations in the classroom. The student will demonstrate his ability to adapt to actual business conditions through this culminating effort of the mid-management program.

**95****INTERNSHIP AS MEDICAL SECRETARY****16 UNITS**

**Prerequisite:** Business 81, 83.

Students will dovetail theory and practice with experience in a hospital business office and discussion of problems encountered in hospital training stations.

Lecture-Laboratory experience at Tucson Medical Center.

**97****INTERNSHIP AS MEDICAL RECORD  
TECHNICIAN****16 UNITS**

**Prerequisite:** Business 81, 83.

The student will dovetail theory and practice with experience in a hospital business office and discussion of problems encountered in hospital training stations.

Lecture-Laboratory experience at Tucson Medical Center.

# Chemistry

## **2a GENERAL CHEMISTRY 4 UNITS**

The student will be introduced to the basic theory and general principles of chemistry through a quantitative approach requiring numerous problem solving techniques. He will attain certain manipulative and observational skills by means of various laboratory experiences involving written and oral communication.

Lecture 3 hours, Laboratory 3 hours.

## **2b GENERAL CHEMISTRY 4 UNITS**

A continuation of Chemistry 2a in which the student becomes acquainted with the descriptive chemistry of selected elements and compounds. He will also utilize certain principles and theory in a brief scheme of qualitative analysis.

Lecture 3 hours, Laboratory 3 hours.

## **12 FOUNDATIONS OF SCIENCE: Chemistry 3 UNITS**

**Prerequisite:** Math 12 and ~~Physics 12~~ or the equivalent.

Through lectures, the student will learn the basic theory of general chemistry. Problems will be introduced shortly after a concept has been developed so that the student may test his understanding. The laboratory experiments are designed to build the student's techniques and concepts of chemistry step by step. Techniques acquired by the student will include the use of the bunsen burner, glass working, weighing, preparation and identification of compounds, distillation, and titration. The keeping of a journal helps the student to develop his thinking into a reasonably precise expression of the facts he has discovered during the experiment.

Lecture 2 hours, Laboratory 3 hours.

## **QUANTITATIVE ANALYSIS 4 UNITS**

The student will be expected to understand certain concepts and principles applicable to a number of stoichiometric and equilibrium relations. Volumetric and gravimetric analysis will be emphasized, with stress being placed on student laboratory technique involving a high level of proficiency. The student will also become acquainted with certain instrumental analysis procedures.

Lecture 2 hours, Laboratory 6 hours.

## **QUANTITATIVE ANALYSIS 4 UNITS**

**Prerequisites:** Math 20 and Chemistry 2b.

Theory and practice of qualitative inorganic analysis. Should be taken by students who plan to teach chemistry, study medicine, or do research work in science.

Lecture 2 hours, Laboratory 6 hours.

The student will, through lectures and laboratory, acquaint himself with the properties and preparations of carbon compounds. Structural formulae, nomenclature, synthesis and the relations between different classes of organic compounds will be studied and mastered by the individual student.

Lecture 3 hours, Laboratory 3 hours.

## Civil Technology

### **1 ORIENTATION TO CIVIL TECHNOLOGY 2 UNITS**

**Prerequisite: None.**

By means of listening, discussing, observing and writing, the student will gain an understanding of the role of the technician in the field of civil engineering and land surveying. He will demonstrate a basic understanding of engineering principles, techniques of engineering research and investigation, concepts of measurements construction techniques and related elementary problems.

### **7 PLANE SURVEYING 4 UNITS**

**Prerequisite: CT 1.**

The student will listen, observe and perform in acquiring an understanding and developing techniques in the use, care and adjustment of surveying instruments. He will demonstrate the ability to measure distances; perform direct, differential and profile leveling; plot profiles; do cross-sectioning; laying grade lines; computations; mapping; measuring angles and directions; traversing vertical and simple curves.

### **26 ROUTE SURVEYING 3 UNITS**

**Prerequisite: CT 7.**

The student will listen, observe and perform in order to gain a working knowledge of advanced problems in horizontal, vertical and easement curves; volume of materials; distribution of earth materials; development of profile and cross-sections.

### **50 ELEMENTS OF CONSTRUCTION**

**Prerequisite: CT 26.**

**2 UNITS**

By means of listening, observing, reading and conducting projects, the student will develop a working knowledge of the principles involved in the heavy construction industry. The student will gain an understanding of heavy equipment cost and performance evaluating techniques, field inspection, tunneling, blasting and materials handling.



- 51 GENERAL LAND SURVEYING 3 UNITS**  
**Prerequisite: Math 24 or 44 and CT 26.**  
 The student will listen, observe, read and conduct projects in order to gain a practical insight into land surveying problems encountered by the civil engineer. He will apply land surveying principles to field problems. The student will practice the techniques of stadia surveying, polaris and sun shots, traverse methods, plane table work and mapping.
- 52 MATERIALS OF CONSTRUCTION 2 UNITS**  
**Prerequisite: CT 1.**  
 By means of listening, observing, writing and doing, the student will gain a knowledge of the principal materials used in the construction of highways, buildings, utilities, and other structures. He will demonstrate a working knowledge of testing and results derived from the tests in materials of construction problems.
- 55 SOIL MECHANICS 3 UNITS**  
**Prerequisites: Math 20, College Algebra or Math 24 or Trigonometry or concurrent enrollment.**  
 The student will listen, observe, write and perform in order to develop a practical insight into soil problems at the level at which they are encountered by a civil engineer. The student will demonstrate a working knowledge of testing and results derived from tests as applied to problems of foundations design.
- 65 INTRODUCTION TO HYDRAULICS AND HYDROLOGY 2 UNITS**  
**Prerequisite: CT 26.**  
 By means of listening, discussing and writing, the student gains an understanding of the fundamental principles of liquid flow in pressured conduits and open channels, hydraulic cycle, run-off collection, systems and steam flow. He will demonstrate the application of these principles to foundations, building materials, water supply, and waste disposal.

## Drafting Technology

- 10 MECHANICAL DRAWING 3 UNITS**  
**Prerequisite: None.**  
 By means of listening, discussing, observing and problem-solving activities, the drafting student will practice the fol-

lowing behaviors: he will develop abilities in lettering, construction of geometric applications, multi-view projection, pictorial representation, basic dimensioning, sectioning and blueprint reading. He will demonstrate basic drafting skill, technique, and instrumentation. The course is offered for those who have not had high school mechanical drawing.

**22                      TECHNICAL DRAFTING                      3 UNITS**

**Prerequisites: DT 10 or at least one year of high school mechanical drawing.**

By means of listening, discussing, observing and problem-solving activities the drafting student will practice the following behaviors: he will develop skill in the solving and delineation of auxiliary views, threads and fasteners, developments and intersections, dimensioning, piping diagrams and axonometric projections. Students will demonstrate the use of the latest techniques, instruments and equipment in performing practical applications that vary in difficulty and progression, from simple representation to more complex, industry-oriented problems.

**23                      APPLIED DESCRIPTIVE GEOMETRY                      3 UNITS**

**Prerequisite: DT 22.**

By means of listening, discussing, observing and problem-solving activities the drafting student will practice the following behaviors: Students will solve (1) typical three-dimensional space problems through application of the principles of multi-view projection; (2) problems offering practical exercises in the solving of true length lines, true size and shape of planes (3) approximate development of plane, warped and double-curved surfaces and (4) other related applications.

**31                      DRAFTING AND DESIGN FOR ELECTRICITY -  
ELECTRONICS                      3 UNITS**

**Prerequisite: DT 22.**

By means of listening, discussing, observing and problem-solving activities the drafting student will practice the following behaviors: he will develop skill in mechanical drafting as it applies to electricity and electronics. He will demonstrate the ability to effectively delineate electronic component symbols, block diagrams, wiring diagrams, schematics and miniaturized circuitry.

**34****MACHINE DRAWING****3 UNITS****Prerequisite: DT 22.**

By means of listening, discussing, observing and problem-solving activities the drafting student will practice the following behaviors: he will demonstrate the ability to accurately represent detailed machine parts by preparing industrial production drawings. The student will draw details, assemblies, gears, cams, illustrations and apply the principles of precision dimensioning and tolerancing. He will develop the ability to use ASA standards, MIL standards and industrial catalogs; perform tolerance studies; complete revisions and do checking.

**45****TECHNICAL DESIGN****3 UNITS****Prerequisite: DT 34.**

By means of listening, discussing, observing and problem-solving activities the drafting student will practice the following behaviors: The student will apply various principles and applications involved in machine and tool designing. He will solve problems related to drill jigs, milling fixtures, machine parts and assemblies, and fabrication procedures. The student will use industrial catalogs, ASA and MIL standards and perform dimensioning and tolerancing for production.

**46****ARCHITECTURAL DRAFTING AND DESIGN****3 UNITS****Prerequisite: DT 22.**

By means of listening, discussing, observing and problem-solving activities the drafting student will practice the following behaviors: He will complete detailed plans necessary for construction methods, materials, procedures, and apply these functional principles in his planning. The student will understand function and design with respect to area planning, elevations, site orientation, mechanical services and construction details.

**47****TOPOGRAPHICAL DRAFTING****3 UNITS****Prerequisite: DT 22.**

By means of listening, discussing, observing and problem-solving activities the drafting student will practice the following behaviors: he will interpret surveyor's notes, complete topographical map drawings, land parcels, sub-division layouts, area calculations, profiling, contouring, sectioning and vertical curve analysis.

**Prerequisite:** DT 22.

By means of listening, discussing, observing and problem-solving activities the drafting student will demonstrate the following behaviors: The student will analyze and solve problems related to structural steel, timber, and concrete, and the applications of these materials to commercial buildings, bridges, and other structures. He will perform basic calculations and draw details and construction plans.

## Drama

### **1 ACTING**

**3 UNITS**

**Prerequisite:** None.

Theories of dramatic art and practice in acting.  
Lecture 3 hours.

### **2 ACTING**

**3 UNITS**

**Prerequisite:** Drama 1.

The understanding of the major factors in developing characterizations in all types of dramatic literature, including theories of dramatic art and practice in acting.  
Lecture 3 hours.

### **3 PRINCIPLES AND TECHNIQUES OF PLAY PRODUCTION**

**3 UNITS**

**Prerequisite:** None.

Theories and practices of dramatic art: acting, directing, scene designing, costuming, stage lighting, makeup, organization and a brief history of the theatre.  
Lecture 3 hours.

### **4 PRINCIPLES AND TECHNIQUES OF PLAY PRODUCTION**

**3 UNITS**

**Prerequisite:** Drama 3.

Techniques and materials used in producing the play or dramatic program, covering all elements and phases of production.  
Lecture 3 hours.

### **10 THEATER WORKSHOP**

**1 UNIT**

**Prerequisite:** Permission of the 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.

# Economics

## **2 PRINCIPLES OF ECONOMICS (Programmed) 3 UNITS**

**Prerequisite: None.**

The student will demonstrate his understanding of the fundamental characteristics of American capitalism, the basic areas of economics analysis, the economic theories and practical applications to current economic problems.

The student will be given an extensive course outline with various questions and programmed terminal performance tasks.

Lecture 3 hours.

## **3 PRINCIPLES OF ECONOMICS (Programmed) 3 UNITS**

**Prerequisite: Economics 2.**

The student will demonstrate his understanding 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.

The student will be given an extensive course outline with various questions and programmed terminal performance tasks.

Lecture 3 hours.

# Education

## **11 INTRODUCTION TO EDUCATION 3 UNITS**

**Prerequisite: Sophomore standing or permission of the 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.

# English

## **X ENGLISH FUNDAMENTALS 3 UNITS**

**Prerequisite: None.**

By means of objective tests, oral and written reports and class participation the student will demonstrate fundamental proficiency in structural grammar, English language history, word formation, diction, use of the dictionary, literary analysis, and the mechanics of punctuation and spelling. A grade of 3 or better is required for entrance to English 1. English Y1, Reading Fundamentals, must be taken in conjunction with English x.

**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. The class recites individually and in concert according to its level of conversational proficiency. For example, students in 1X learn the Vietor triangle of vowel formation. Students in 2X learn basic sentence patterns. Students in 3X learn intonation and its relation to meaning. Students in 4X study idiomatic expressions.

The language laboratory provides tape recordings of the text material, records of selected portions of the text, and tape-cards which allow immediate recording, listening, and correcting of pronunciation.

The student should be in the laboratory two hours a week, and in class three hours a week.

## **Y1      READING FUNDAMENTALS**

**1 UNIT**

**Prerequisites:** None.

**(Non-transferable)**

The student whose ACT reading scores fall above the 40th percentile will develop 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. Participation in actual lab assignments in study-skills and the keeping of an adequate vocabulary improvement list will add to his word power. Adequate college reading rates, comprehension, and vocabulary are the goals of Y1.

## **Y2      CRITICAL EVALUATIVE READING**

**1 UNIT****(2 hours weekly)**

**Prerequisites:** 40th percentile on the ACT test or complete English X.

The student whose ACT reading scores fall above the 40th percentile will develop techniques of critical-evaluative reading by criticizing literary prose and poetry, reading library references on literary criticism, locating inferences, generalizations, assumptions, and supporting details in both inductive and deductive paragraphs, taking timed readings with comprehension checks, using a systematic approach to vocabulary development including a review of foreign roots and affixes. Students will be prepared for reading in the professions at the university level.

- 1 COMPOSITION 3 UNITS**  
**Prerequisite: Counseling placement or a grade of 3 or better in English X.**  
The student will demonstrate his comprehension of essays and short stories and his ability to apply basic techniques of exposition and literary interpretation through his oral participation and the writing of approximately six thousand words. In writing a documented essay, the student will show his ability to organize his research into a coherent unity and to handle the form and style of a research paper.
- 2 COMPOSITION 3 UNITS**  
**Prerequisite: English 1.**  
Through lecture-discussion, oral and written exercises and examinations, and the study of logic, the techniques of argument and persuasion, and fallacious reasoning, the student will develop a competence in the composition of argumentative and persuasive essays. In small and large group discussions and through written analyses, the student will demonstrate his ability to interpret selected works of poetry, with emphasis on connotation, structure, symbol, and ambiguity.
- 4 INTRODUCTION TO LITERATURE 3 UNITS**  
**Prerequisite: English 1 and 2 or permission of the instructor.**  
Through oral and written analysis, using films, tapes, and records as well as literary selections, the student will demonstrate his understanding of various literary genres—poetry, drama, essay, novel, and short story—and the significant characteristics of each.
- 7 CREATIVE WRITING 3 UNITS**  
**Prerequisites: English 1 and permission of the professor.**  
In discussion, workshop and individual conference, by means of oral and written critical evaluation and the composition of poetry, short story, essay and description, the student will demonstrate his ability in creative expression.
- 8 WRITTEN COMMUNICATIONS AND REPORTS 3 UNITS**  
**Prerequisites: Counselor placement or a grade of 3 or better in English X.**  
Through writing and discussion the student will develop the skills of effective writing communication, with emphasis on the organization of factual and statistical materials, basic report style and format and functions of formal business communications.

- 20**                      **BRITISH LITERATURE**                      **3 UNITS**  
**Prerequisites: Six units of freshman English or permission of professor.**  
 Through oral report, recitation and discussion, written interpretation, research, the use of records and tapes and examination, the student will indicate his comprehension of periods, genres, and individual works of British literature from the Age of Chaucer to the Age of Johnson.
- 21**                      **BRITISH LITERATURE**                      **3 UNITS**  
**Prerequisite: Six units of freshman English or permission of professor.**  
 Using the techniques of English 20, the student will demonstrate his understanding of periods, genres and selected works of British literature of the 18th, 19th and 20th centuries. English 20 is not a prerequisite to English 21.
- 24**                      **AMERICAN LITERATURE**                      **3 UNITS**  
**Prerequisites: Six units of freshman English or professor's permission.**  
 The student, through oral and written interpretation and evaluation, as well as objective and essay examination, will demonstrate his familiarity with selected prose and poetry in America from the Colonial Period to 1860.
- 25**                      **AMERICAN LITERATURE**                      **3 UNITS**  
**Prerequisite: Six units of freshman English or professor's permission.**  
 Using the same evaluative procedures as in English 24, the student will demonstrate his familiarity with selected American prose and poetry from 1860 to the present. English 24 is not a prerequisite to English 25.
- 26**                      **WORLD LITERATURE**                      **3 UNITS**  
**Prerequisite: Six units of freshman English or permission of professor.**  
 By means of oral and written reports, written examinations, and participation in class discussions, the student will reveal his appreciation of some of the master works of literature through the Renaissance, including selections by Homer, the Greek tragic writers, Virgil, Dante, Chaucer, Cervantes, and Shakespeare.
- 27**                      **WORLD LITERATURE**                      **3 UNITS**  
**Prerequisite: Six units of freshman English or permission of professor.**  
 The student will demonstrate his understanding of ten major



literary works from the Renaissance to the present by oral and written reports and examinations and participation in class discussion. Works will include selections by Voltaire, Goethe, Stendhal, Austen, Dickens, Dostoevsky, Turgenev, Flaubert and a twentieth century novelist. English 26 is not a prerequisite to English 27.

## French

**1x, 2x, 3x,**

### **ELEMENTARY CONVERSATIONAL**

**& 4x**

### **FRENCH**

**2-2-2-2 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 the courses in the series.**

The student goals are the same as for French 1a and 1b; however classes will meet fewer hours per week and as a result will 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 transferred upon the completion of 4x.

### **1a & 1b ELEMENTARY CONVERSATIONAL FRENCH 4-4 UNITS**

**Prerequisite: 1a for 1b or 1x and 2x for 1b.**

Through dialogue, discussion, and oral drill, the student will demonstrate his ability to converse in French. The student will demonstrate his reading and comprehension abilities by taking dictation, writing compositions, and responding orally to printed material and oral instruction. Through study of French culture and selected literary works, he will develop an understanding of French traditions, customs, and thought.

Lecture 4 hours and Laboratory 2 hours.

**50a**

**& 50b**

### **INTERMEDIATE CONVERSATIONAL FRENCH 4-4 UNITS**

**Prerequisites: French 1a and 1b or the equivalent in the judgment of the professor.**

The student will gain additional skill in the comprehension and usage of French grammar and construction with emphasis upon oral usage. The student will be able to read and interpret the writings of a selected number of French authors both orally and by written resumes and will learn to respond to directions at a rate of speed consistent with that of a native speaker on any assigned topic read or discussed in class.

Lecture 4 hours, Laboratory 1 hour.

# Geography

<b>1</b>	<b>PHYSICAL GEOGRAPHY</b>	<b>3 UNITS</b>
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**Prerequisite: None.**

The student will demonstrate in writing and orally his knowledge and understanding of terms and principles of physical geography. He will relate the influence that man and the physical environment have upon one another. He will develop skills and abilities in reading and understanding maps, charts, and globes.

<b>2</b>	<b>WORLD GEOGRAPHY</b>	<b>3 UNITS</b>
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**Prerequisite: None.**

The student will be able to list and explain the reasons for the grouping of the various parts of the world into regions. He will relate in writing and orally his understanding of the importance of the regions, their dependence upon other regions and their place in the world scene. He will develop skills and abilities in reading and interpreting maps and charts.

**5 ECONOMIC GEOGRAPHY 3 UNITS**

**Prerequisite: None.**

The world's resources and industries; agriculture, mineral resources, manufacturing, trade routes, and trade centers.

# Geology

<b>7</b>	<b>INTRODUCTION TO MINERALOGY</b>	<b>3 UNITS</b>
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**Prerequisite: Chemistry 2b.**

Determination of important minerals, their origins, and relationship, by physical and chemical tests.

Lecture 2 hours, Laboratory 3 hours.

<b>12</b>	<b>FOUNDATIONS OF SCIENCE: GEOLOGY</b>	<b>3 UNITS</b>
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**Prerequisites: 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 2 hours, Laboratory 3 hours.

**51      PHYSICAL GEOLOGY      3 UNITS**

**Prerequisite: None.**

Principles of physical geology for students who plan to major in geology, hydrology, engineering, and agriculture.

Lecture 2 hours. Laboratory 3 hours, including field trips.

# Government

## **2 AMERICAN NATIONAL GOVERNMENT 3 UNITS**

**Prerequisite: None.**

The student will demonstrate in writing and orally his knowledge and understanding of the U.S. Constitution, the structure and function of the national government, and the role of the citizen in the United States today. He will know and be able to explain terms related to the government and political scenes. This course is not open to those with credit in Govt. 57. It fulfills the federal constitution requirement for an Arizona teaching certificate.

## **57 NATIONAL AND ARIZONA CONSTITUTION 3 UNITS**

**Prerequisite: Sophomore standing.**

The student will demonstrate, both in writing and orally, his knowledge of federal and state government and the various functions which each serves. He will study the period of American independence and its influence on the Constitution; the American Party System, the development of American political thought, civil liberties, and the various branches of government, both nationally and on the state level. The student will understand the part he plays in the government of his state and nation. This course is approved for teacher certification. Students majoring in political science should take Govt. 2.

# Health

## **42 PERSONAL HEALTH 3 UNITS**

**Prerequisite: None.**

Various methods of instruction are employed in the course, including class discussion, lecture by film, conventional lecture and written papers to convey the content of the course which includes 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 FIRST AID AND SAFETY 2 UNITS**

**Prerequisite: None.**

This course includes both the standard and advanced Red Cross course in first aid. Practical application of theory is emphasized through class participation in bandaging, litter bearing, artificial respiration and other types of emergency care in case of sudden accident or illness.

**Prerequisite:** Sophomore standing or permission of the professor.

Course content includes the basic plan of the school health program: health services, health instruction, and healthful school environment. The role of the teacher in relation to the school health program and the community health program is analyzed through oral and written reports, class discussion, panel discussions, and lecture.

## Health Technologies

1

### **BASIC HEALTH TECHNOLOGY**

**3 UNITS**

**Prerequisite:** None.

By means of listening, discussing, observing and writing the student will understand the broad spectrum of opportunities in the health occupations. The student will become oriented to health service resources. This will be demonstrated by the student displaying an understanding of (1) health services interrelationships, functions, and activities; (2) group and interpersonal relationships; (3) medical team relationships; (4) medical terminology; (5) legal and ethical responsibilities related to health services; (6) diagnostic techniques; (7) principles of asepsis, sterilization, disinfection, and antisepsis; and (8) selected first aid measures.

10

### **PROFESSIONAL-VOCATIONAL RELATIONSHIPS**

**1 UNIT**

**Prerequisite:** Admission to LPN program.

The student will listen, discuss, observe and work in order to (1) gain an understanding of basic legal considerations of importance to the nursing student, (2) gain a basic understanding of nursing organizations, (3) develop an appreciation of the heritage of modern nursing and its historical development and (4) gain insight into origins of interpersonal relationships.

12a

### **FUNDAMENTALS OF NURSING I**

**6 UNITS**

**Prerequisite:** Admission to LPN program.

By means of listening, discussing, observing, problem-solving, and performing under supervision in clinical situations, the student will develop an understanding of comprehensive, patient-centered nursing. The student will demonstrate by application under actual working conditions the principles of communication, health teaching and basic nursing procedures, and the knowledge and skills necessary in carrying out nursing care measures and therapeutic techniques.

**14a****MEDICAL-SURGICAL NURSING I****3 UNITS****Prerequisite: Admission to LPN program.**

By means of listening, discussing, observing, problem-solving and performing in clinical situations, the student demonstrates an understanding of the nursing problems of adults with medical and surgical conditions, interpersonal relationships and the careful planning for complete nursing care of a few patients. The student will exhibit knowledge of clinical pharmacology, clinical nutrition, rehabilitation, medical and surgical asepsis, and emotional aspects of illness.

**14c****MATERNAL-CHILD NURSING****8 UNITS****Prerequisite: Successful completion of the first two semesters of nursing.**

The student will listen, discuss, write, observe and perform in a clinical situation in order to gain an understanding of the physical and emotional changes in the mother during normal maternity cycle and the normal growth and development of child from birth through adolescence. The student will demonstrate, under actual working conditions, ability to: (1) use medical management techniques, (2) apply principles and techniques of nursing pertaining to normal maternity cycle and the newborn, (3) understand the care of the child during common illnesses in relation to growth and development factors and (4) their ability to conduct observations in clinics, nursery schools and other child care agencies.

**16****MENTAL HEALTH****3 UNITS****Prerequisite: Successful completion of first semester of nursing.**

By means of listening, discussing, observing and writing, the student will demonstrate an awareness of the nurses' role in care, treatment, and rehabilitation of the mentally ill; social and economic implications of mental illness; interpersonal skills and principles applicable to all areas of nursing. The students will gain a working knowledge, through guided experience, of caring for patients in a general hospital.

**18****ADVANCED-PROFESSIONAL-VOCATIONAL  
RELATIONSHIPS****1 UNIT****Prerequisite: Successful completion of first two semesters of nursing.**

By means of listening, discussing and observation, the student will exhibit in seminars, conferences and socio-dramas their understanding of advanced concepts of interpersonal relationships, the nursing team, professional ethics and position applications.

# History

## **1 HISTORY OF THE UNITED STATES 3 UNITS**

**Prerequisite: None.**

The student will gain an understanding of the historical method. He will demonstrate his understanding of the social, economic and political forces which prevailed in America between the founding of the New World and the Civil War. He will evaluate cause and effect relationships and draw generalizations from the facts and principles that he learns from the course.

## **2 HISTORY OF THE UNITED STATES 3 UNITS**

**Prerequisite: None.**

The student will demonstrate in writing and orally his understanding of the social, economic and political forces that moved the United States through the period of Reconstruction and industrialization, and into the position of a world power. He will evaluate cause and effect relationships and draw generalizations from the mass of data that he covers in the course. He will relate the country's current problems and possible solutions from a historical perspective.

## **4 HISTORY OF WESTERN CIVILIZATION 3 UNITS**

**Prerequisites: None.**

The student will demonstrate his understanding of the major themes in the history of the West from the founding of civilization through the rise of Divine Right Monarchies. He will relate the influence this period has had upon future generations and other lands. The student will study the major periods of Western Civilization, including ancient civilizations, the Middle Ages, the Renaissance and Reformation and the spread of western civilization to the Americas, Asia, and Africa.

## **5 HISTORY OF WESTERN CIVILIZATION 3 UNITS**

**Prerequisite: None.**

The student will gain an understanding of the West's development from the rise of modern liberalism to the present world situation. He will analyze and criticize the major ideologies of the period — liberalism, democracy, fascism, socialism and communism — and gain an understanding of their influence upon the modern world situation.

# Humanities

50

## HUMANITIES

4 UNITS

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

Through lectures and seminars conducted by instructors in each of the fields of art, literature, and music, utilizing slides, films, tape recordings, the student will gain an understanding of the major works of Western man from pre-historic times through the late Middle ages. The student will demonstrate his knowledge and understanding of the literature, the sculpture and painting, and the musical compositions in small discussion groups and on examinations. Each student, in addition to the examination, will be required to perform or present to the class an example of his own work in one of the fields of art, literature, or music.

51

## HUMANITIES

4 UNITS

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

Through lectures and seminars conducted by instructors in each of the fields of art, literature, and music, utilizing slides, films, tape recordings, the student will gain an understanding of the major works of Western man from the Renaissance to the present age. The student will demonstrate his knowledge and understanding of the literature, the sculpture and painting, and the musical compositions in small discussion groups and on examinations. Each student, in addition to the examinations, will perform or present to the class an example of his own work in each of the fields of art, literature, or music.

# Journalism

1

## COMMUNICATIONS

3 UNITS

**Prerequisites: Eligibility for English 1, completion of English 1 with a 3 or better, or permission of the professor.**

Through oral and written exercises and examinations, the student will demonstrate his acquaintance with mass communications media by defining and applying the basic concepts of gathering, writing, and evaluating news for newspapers, magazines, radio, television, business publications, and house publications. Students will demonstrate the ability to analyze and understand the principles and problems of mass communications through oral and written exercises and examinations.

**2****REPORTING****3 UNITS**

**Prerequisites:** Completion of Journalism 1 with a 3 or better, or permission of the professor.

The student will demonstrate his ability to produce accurate, fair, and condensed news coverage through actual reporting for the Heliograph, as well as through written and oral exercises and examinations. Journalism 2 is primarily intended for sophomore students.

**3****ADVANCED REPORTING****3 UNITS**

**Prerequisites:** Completion of Journalism 2 with a 3 or better, or permission of the professor.

The student will demonstrate his ability to perform the tasks of Journalism 2 in more depth and breadth. In addition, the student will demonstrate an improvement and development of skills through specialized reporting, rewriting, headline writing, feature writing, copyreading, proofreading, independent study, as well as through oral and written exercises and examinations. The student's prospects and aptitude toward journalism as a career will be emphasized. Journalism 3 is primarily intended for sophomore students.

**10****PUBLICATIONS WORKSHOP****1 UNIT**

**Prerequisites:** Permission of the professor.

The student will demonstrate an ability in some phase of reporting, writing, photography, art, layout, etc., through work on the college publications. Students in scheduled journalism classes may not enroll. No student shall be awarded more than *three* such journalism units at Cochise College.

## Law Enforcement

**60****INTRODUCTION TO LAW ENFORCEMENT****3 UNITS**

**Prerequisite:** None.

By means of listening, discussing, observing and writing, the student will develop (1) awareness of the requirements involved in law enforcement occupations, (2) an understanding of how law enforcement units function and (3) awareness of the development of good relationships between law enforcement agencies and the public. The student will demonstrate an understanding of police qualifications, police standards, code of ethics, and the individual problems of policemen on duty and as citizens of the community.



**Prerequisite: Soc 12.**

The student will listen, discuss, observe and write in order to develop an understanding of man in relation to crime phenomena. He will exhibit this understanding by being able to differentiate between criminal types in terms of behavior. The student will develop an insight into the scientific efforts expended in the study of the criminal person and the explorations provided by various authorities in this field.

**62 POLICE ORGANIZATION AND ADMINISTRATION 3 UNITS****Prerequisite: LE 60 or permission of the professor.**

The student will listen, discuss, observe and write in order to demonstrate an understanding of the various aspects involved in the principles of organization and administration of law enforcement agencies.

**62a POLICE FIELD TRAINING 1 UNIT****Prerequisite: LE 60.**

The student will work in a local law enforcement agency and demonstrate the ability to perform trainee-administrative work, including booking procedures, police desk functions, dispatching, and other administrative tasks. The student will work a minimum of 8 hours per week and will maintain a daily report of his activities.

**64 POLICE PATROL FUNCTIONS 3 UNITS****Prerequisites: LE 62 and LE 62a.**

By means of listening, observing, discussing, and writing, the student will gain an understanding of police patrol administration and the various techniques unique to law enforcement agencies. The student will practice patrol planning techniques, and will be familiar with special equipment required of the modern police agency, as well as techniques of law enforcement personnel administration.

**64a POLICE FIELD TRAINING 1 UNIT****Prerequisite: LE 62 and 62a.**

The student will work in a local law enforcement agency and demonstrate the ability to perform trainee-patrol functions. Student will work a minimum of 8 hours per week and will maintain a daily report of activities.

- 66 CRIMINAL LAW 3 UNITS**  
**Prerequisite: LE 62 or permission of professor.**  
 By means of listening, discussing, observing and writing, the student will demonstrate an understanding of procedural criminal law and how the legal processes work.
- 70a CRIMINAL INVESTIGATION 3 UNITS**  
**Prerequisite: LE 66 or permission of the professor.**  
 The student will listen, discuss, observe and perform in order to demonstrate the knowledge of how a police officer on duty can be of assistance to the prosecutor and the criminalist. He will be able to complete a well organized and successful investigation.
- 70b CRIMINAL INVESTIGATION 3 UNITS**  
**Prerequisites: LE 70a.**  
 The student will listen, discuss, observe, write reports, and develop projects in order to demonstrate an understanding of the importance of the crime laboratory, criminalistics, and data covering the entire field of investigation.
- 72 POLICE ARSENAL AND WEAPONS TRAINING 1 UNIT**  
**Prerequisite: LE 64.**  
 The student will listen, observe and perform in order to demonstrate his understanding and ability to handle, maintain, and use firearms.
- 74 ARREST, SEARCH, AND SEIZURE 3 UNITS**  
**Prerequisite: LE 66.**  
 By means of listening, discussing, observing and writing, the student will demonstrate an understanding of the laws of arrest, search, and seizure. The student will apply this knowledge to solution of specific problems, such as the use of warrants, entry into land or buildings in arrest or search for prisoners, confessions, and seizure incident to arrest and disposition of property seized.
- 76 DEFENSIVE TACTICS 1 UNIT**  
**Prerequisite: LE 64 and LE 64a.**  
 The student will listen, discuss, observe and perform in order to demonstrate the ability to defend himself against an attacker. The student will pass a minimum physical fitness test. The student will become aware of the value of physical fitness and the use of the police baton and the yawara stick.

# Mathematics

## **1x      FUNDAMENTAL MATHEMATICS      3 UNITS**

**Prerequisite:** Indicated mathematics deficiency.

The student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include arithmetic concepts, 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 toward Associate degree only.

## **2x      ELEMENTARY ALGEBRA      3 UNITS**

**Prerequisite:** Acceptable score in placement examination or grade of 3 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. The student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include 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.

## **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. The student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include elementary logic, congruence, parallelograms, circles, inequalities, similar polygons, loci constructions, area. Credit toward Associate degree only.

## **11      INTERMEDIATE ALGEBRA      3 UNITS**

**Prerequisites:** One year of high school algebra and one year of high school geometry or Math 3x.

Covers the content of advanced high school algebra, hence not open for credit to students who have earned credit in such a course. The student will be encouraged to discover

mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include real number system, polynomials, fractions, first and second degree equations, radicals, functions and graphs, simultaneous systems, sequence and series, exponential and logarithmic functions.

**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 student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include 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.

**19 STATISTICS 3 UNITS**

**Prerequisite:** Bus. Math or permission of the professor.

The student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation, his understanding of major concepts. These include fundamental calculations, organization of data and the use of analytical skills to problematic business or economic problems. Applications of statistical induction will be drawn from economics and business to illustrate use of this tool of analysis.

**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.

The student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include 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.

24

**PLANE TRIGONOMETRY**

**3 UNITS**

**Prerequisite:** Math 20 or approval of the professor.

The student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include trigonometric functions, identities, related angles, radial measure, graphs, functions of two angles, equations, logarithms, right and oblique triangles, inverse functions, complex numbers.

26

**SLIDE RULE**

**1 UNIT**

**Prerequisite:** Permission of the professor.

The student will develop proficiency in use of the slide rule to perform operations including multiplication and division, ratio and proportion, areas and circumference of circles, square root, cube root, logarithms, trigonometric functions, theory and practice of placing decimal point in all operations.

44

**COLLEGE ALGEBRA AND TRIGONOMETRY**

**5 UNITS**

**Prerequisites:** High school plane geometry or Math 3x together with 2 years of high school algebra or Math 11.

The student will be encouraged to discover mathematical relationships and will be required to demonstrate by means of precise oral and written mathematical statements of his own derivation his understanding of major concepts. These include 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.

51

**ANALYTICAL GEOMETRY WITH CALCULUS**

**5 UNITS**

**Prerequisite:** Four years of high school mathematics with permission of the professor or Math 20 and Math 24 or Math 44.

The student will be required to demonstrate proficiency in solving problems involving 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.

**52                      ANALYTICAL GEOMETRY WITH CALCULUS                      5 UNITS**

**Prerequisite: Math 51 with grade of 3 or better.**

The student will be required to demonstrate proficiency in solving problems involving 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.

**53                      ANALYTICAL GEOMETRY WITH CALCULUS                      3 UNITS**

**Prerequisite: Math 52 with grade of 3 or better.**

The student will be required to demonstrate proficiency in solving problems involving vectors in three demensions; elements of infinite series; partial differentiation; and multiple integration.

**54                      DIFFERENTIAL EQUATIONS                      3 UNITS**

**Prerequisite: Math 53 with grade of 3 or better.**

The student will be required to demonstrate proficiency in solving problems involving 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 operators; simultaneous solutions of differential equations; La Place Transformation and use of series; and applications of differential equations to physical problems.

## Music

**1                      INTRODUCTION TO MUSIC                      2 UNITS**

**Prerequisite: None.**

An introduction to music listening illustrated with recordings of important musical literature of the eighteenth through twentieth centuries.

Lecture 2 hours.

**2                      INTRODUCTION TO MUSIC                      2 UNITS**

**Prerequisite: None.**

Special emphasis is placed on style characteristics of music from the Renaissance to the present.

Lecture 2 hours.

**Prerequisite: None.**

The Beginning Choir (College Glee Club, Mixed Chorus) studies basic singing skills and performs the standard choral library.

Daily rehearsal.

**10(B)a-d COLLEGE BAND****1-1-1-1 UNITS****Prerequisite: Audition.**

The College Band studies and performs outstanding musical literature transcribed from orchestral repertory or composed for band. The Band performs in concerts and at selected athletic events. Open to all students with playing experience who can demonstrate sufficient proficiency on their instrument.

Daily rehearsal.

**10(C)a-d COLLEGE CHOIR****1-1-1-1 UNITS****Prerequisite: Interview with director.**

The College Choir performs outstanding literature from various periods of musical composition. Open to all students. Previous choral experience is not required.

Daily rehearsal.

**20(I) a-d ENSEMBLE****1-1-1-1 UNITS****Prerequisite: Two or three years playing experience in high school, or its equivalent.**

Duets, trios, quartets or larger ensembles of mixed or like instruments will study and perform music appropriate to the groups.

Rehearsal 3 hours.

**20(V)a-d ENSEMBLE****1-1-1-1 UNITS****Prerequisite: One or two years singing experience in high school, or its equivalent.**

Solos, duets, trios, or larger ensembles will study and perform appropriate vocal literature. Principally for the student specializing in voice.

Rehearsal 3 hours.

**13(V)a-b VOICE - Individual Instruction****1-1-1-1 UNITS****14(Va-b Prerequisite: Permission of the professor.**

Student prepares recital literature for jury performance. Weekly lesson.

**13(l) a-b      INSTRUMENT - Individual Instruction      1-1-1-1 UNITS**

**14(l) a-b      Prerequisite: Permission of the professor.**

Student prepares recital literature for jury examination.  
Weekly lesson.

**30                      KEYBOARD HARMONY                      1 UNIT**

**Prerequisite: To be taken concurrently with Music 32.**

Special work on ear training, keyboard harmonization, and the realization of theory as applied to the keyboard.

Laboratory 2 hours.

**32a-32b      THEORY                      3-3 UNITS**

**Prerequisite: 32a is a prerequisite for 32b.**

A systematic study of the rules of music. Ear training and sight singing are emphasized.

Lecture 4 hours.

## Philosophy

**11                      INTRODUCTION TO PHILOSOPHY                      3 UNITS**

**Prerequisite: None**

Through readings and discussion, with a minimum of emphasis on the lecture, the student will examine the nature and meaning of reality, conduct and thought. He will demonstrate his ability through written work to interpret the significant philosophical concepts of Western Civilization.

**20                      PHILOSOPHIES OF THE EAST                      3 UNITS**

**Prerequisite: None**

Through readings of translations of the great works of Hinduism, Buddhism, Taoism, and Confucianism, and through classroom discussion, the student will develop an appreciation and an awareness of the major philosophical movements of East Asia. He will demonstrate his ability to interpret and relate his readings by presenting several short essays.



# Physical Education

**1M PHYSICAL EDUCATION, FRESHMAN MEN (FALL) 1 UNIT**

**Prerequisite: None**

The student will participate in badminton, table tennis, weight training, trampolining, physical conditioning and gymnastics.

**1MS-2MS BEGINNING SWIMMING (MEN) 1 UNIT**

**Prerequisite: None**

The male non-swimmer will be guided through primary phases of learning to swim with the final objective of the course the ability to swim 30 yards. All full-time students are required to take this course or exhibit the ability to swim 30 yards.

<b>1W</b>	<b>PHYSICAL EDUCATION, FRESHMAN WOMEN (FALL)</b>	<b>1 UNIT</b>
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**Prerequisite: None**

The student will participate in badminton, table tennis and beginning dance.

**TWS-2WS BEGINNING SWIMMING (WOMEN) 1 UNIT**

**Prerequisite: None**

The female non-swimmer will be guided through primary phases of learning to swim with the final objective of the course the ability to swim 30 yards. All full-time students are required to take this course or exhibit proficiency of the above objective.

<b>2M</b>	<b>PHYSICAL EDUCATION, FRESHMAN MEN (SPRING)</b>	<b>1 UNIT</b>
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**Prerequisite: None**

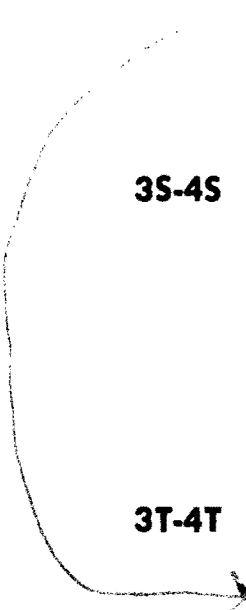
The student will participate in tennis, hand ball and volleyball.

<b>2W</b>	<b>PHYSICAL EDUCATION, FRESHMAN WOMEN (SPRING)</b>	<b>1 UNIT</b>
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**Prerequisite: None**

The student will participate in volleyball, gymnastics and tennis.

- 3A-4A COED GYMNASTICS 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
 The student will be guided through beginning and intermediate skills on all the basic pieces of gymnastics apparatus.
- 3B-4B WEIGHT TRAINING AND WRESTLING (MEN ONLY) 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
 The student is introduced to the basic skills and knowledge necessary in weight training and wrestling, and is provided with opportunity for competitive intra-class wrestling.
- 3C-4C MODERN DANCE (WOMEN ONLY) 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
 The student will participate in individual and group physical exercises and learn to express herself through modern dance interpretations.
- 3D-4D COED BADMINTON/VOLLEYBALL 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
 The student will participate in badminton and volleyball with emphasis on the mastery of fundamentals.
- 3E-4E COED BOWLING 1 UNIT**  
 The student will participate in the development of beginning skills of bowling with emphasis on the mastery of fundamentals.
- 3F-4F BEGINNING COED TENNIS 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
 The student will be introduced to the beginning skills of tennis with emphasis on the mastery of fundamentals.
- 3G-4G BEGINNING COED GOLF 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
 The student will participate in the development of beginning skills of golf with emphasis on the mastery of fundamentals.

- 3H-4H COED FOLK AND SOCIAL DANCE 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
The student will become acquainted with the various ball-room steps in social dancing and will have opportunity to master traditional European and American folk dances.
- 3I-4I COED ARCHERY 1 UNIT**  
**Prerequisite: Physical Education 1 and 2, Sophomore standing or permission of professor.**  
The student will participate in target archery and clout shooting with opportunity for improvement of existing skills.
- 1J-2J COED ADAPTED PHYSICAL EDUCATION 1 UNIT**  
**3J-4J Prerequisite: Written statement from a licensed physician requiring a limited activities program.**  
The student will engage in a personalized program of physical education consistent with the recommendation of his private physician.
- 3K-4K BEGINNING HANDBALL (MEN ONLY) 1 UNIT**  
**Prerequisite: PE 1 and 2 or Sophomore standing, or permission of professor.**  
The student will develop basic skills of handball through instruction, participation and intra-class competition.
- 3R-4R INTERMEDIATE COED SWIMMING 1 UNIT**  
**Prerequisite: PE 1S or 2S, or permission of professor.**  
The student will be given an opportunity to improve on his skills in the 4 fundamental strokes: crawl, breast, back and side. Final objective of the course will be the ability to swim continuously for 5 minutes on front, side and back.
- 3S-4S ADVANCED COED SWIMMING AND WATER SPORTS 1 UNIT**  
**Prerequisite: PE 3R or 4R, or permission of professor.**  
The student will develop variations of the 4 fundamental strokes as well as other miscellaneous water skills. Water polo, synchronized swimming and other aquatic activities are introduced.
- 3T-4T COED LIFE SAVING AND WATER SAFETY 1 UNIT**  
**Prerequisite: PE 1 and 2, PE 3S or 4S, or permission of professor.**  
In this course the student will meet the requirements of the Standard Red Cross course leading to certification in Senior Life Saving or Water Safety Instruction.
- 

**Prerequisite:** Permission of professor

The student participating as a member of a varsity collegiate team will comprise membership of this class.

55

**ORIENTATION TO PHYSICAL EDUCATION**

3 UNITS

**Prerequisite:** None.

The student will be presented with the nature and scope of physical education, its historical development, basic philosophy and objectives, changing concepts, scientific foundations, and professional opportunities. Course objectives will be met through discussion, oral and written reports, lecture, and panel discussion.

72

**DEFENSIVE TACTICS**

1 UNIT

**Prerequisite:** LE 60 or permission of professor.

The student will develop necessary physical coordination and self-defense skills for combatting attackers.

171

**ORIENTATION TO RECREATION**

2 UNITS

**Prerequisite:** None.

The student will analyze the nature and scope of the field of recreation, its historical development, philosophy and objectives, changing concepts, scientific foundations and professional opportunities. Through various methods of instruction emphasizing class participation the student will gain a basic understanding of recreation in American life, understanding of roles of various levels of government in recreation, awareness of relationships between physical education, health, camping and outdoor recreation.

189

**ELEMENTARY SCHOOL PHYSICAL EDUCATION** 3 UNITS

**Prerequisite:** None

The student will be instructed in the scope and values of physical education and movement education in the elementary school. The student will gain an understanding of the teaching designs for primary and intermediate grades pertaining to physical education as well as knowledge necessary to evaluate physical education programs. Class participation in recommended activities for the elementary school will comprise an important portion of the course. The course is designed for prospective elementary education teachers, physical education majors and minors.

# Physics

- 2a-2b      GENERAL PHYSICS      4-4 UNITS**  
**Prerequisite:** Math 11. 2a is a prerequisite for 2b.  
Lectures, demonstrations, and problems in mechanics, properties of matter, heat, sound, light, electricity and magnetism, and atomic and nuclear physics.  
Lecture 3 hours, Laboratory 3 hours.
- 3a-3b      INTRODUCTORY PHYSICS WITH CALCULUS      4-4 UNITS**  
**Prerequisite:** Math 51. 3a is a prerequisite to 3b.  
Lecture the same as 2a-2b. Laboratory sections use calculus.  
Lecture 3 hours, Laboratory 3 hours.
- 12      FOUNDATIONS OF SCIENCE: Physics      3 UNITS**  
**Prerequisite:** Math 12 or its equivalent.  
Presentation of basic concepts of physics with particular emphasis on modern physics.  
Lecture 2 hours, Laboratory 3 hours.

# Psychology

- 1      PSYCHOLOGY      1 UNIT**  
**Prerequisite:** None.  
Psychology 1 is designed as a group counseling course for the full-time freshman student, directed by a member of the counseling staff. Self evaluation is initiated through individual test interpretation, supplemental testing, study skills, vocational or occupational planning, reading improvement skills, and adjustment to college life.  
Lecture 1 hour.
- 2a      ELEMENTARY PSYCHOLOGY      3 UNITS**  
**Prerequisite:** None.  
The student will learn the principles of the scientific method and identify the major areas of psychological investigation. The student will identify and explain the nature of the basic processes of learning, thinking, language, maturation and development, psychological tests and measurements, intelligence, and social influences on behavior.

**2b****ELEMENTARY PSYCHOLOGY****3 UNITS****Prerequisite: Psychology 2a.**

The student will identify and explain biological bases of behavior, sensation and perception, motivation and emotions, personality and adjustment, and behavior disorders. The student will participate in several experimental demonstrations of the aforementioned processes.

**13****CHILD PSYCHOLOGY****3 UNITS****Prerequisite: None.**

The student will become familiar with descriptive principles which can be applied to all behavior—animal, as well as human, and then he will learn to apply these principles to the developing human child, so that he may understand the techniques of analyzing interactions of the child and his environment from a natural science point of view. In addition the student will trace the physical, intellectual social, and emotional components of the developmental process from birth to pre-adolescence.

**14****ADOLESCENT PSYCHOLOGY****3 UNITS****Prerequisite: None.**

The student will learn fundamental principles of behavior and development and apply these principles to the adolescent. The student will identify and explain the problems faced by the adolescent in our society.

## Sociology

**1****INTRODUCTION TO SOCIOLOGY****Prerequisite: None**

The student will learn the application of the scientific method to sociological concepts and the uses of sociology through participation in research techniques developed by authorities. He will learn modes of sociological analysis. He will learn to recognize the nature of social organization and social institutions. He will determine the relevance of population composition and growth, of conformity and deviancy to social change and social disorganization.

**2****SOCIAL PROBLEMS****Prerequisites: Sociology 1, or Permission of Instructor.**

The student will learn to recognize conditions viewed as social problems through their impact on social expectations systems or sub-systems. The student will gain perspective about several major social problems viewed as national problems, as problems of place, or of deviant behavior, or as emerging problems, through a summary of these, qualified and amplified by several authorities. He will evaluate, in the light of current situations, the suggested solutions to some of the problems posed.

10

**EDUCATION FOR MARRIAGE.****Prerequisite: None.**

The student will identify the relationships of the nuclear and kinship family to modern industrial society. He will interpret the role of the family to the other basic institutions of society, particularly with reference to modern American society. He will have access to views of the problems of dating, courtship, marriage, and family from visiting members of the clergy, medical profession, and of private and public agencies concerned with marriage.

12

**JUVENILE DELINQUENCY****Prerequisites: Sociology 1 and 2, or permission of instructor.**

The student will assess the theories of the development of delinquent behavior presented by authorities. He will learn to recognize patterns of delinquency. The student will survey institutional controls and treatment from efforts of schools through ultimate legal methods. Student participation in some research technique is also a part of this course.

## Spanish

1x, 2x,  
3x,-4x**CONVERSATIONAL SPANISH****2-2-2-2 UNITS****Prerequisite: 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 for 1b or 1x and 2x for 1b.**

Through recitation and oral response, taking dictation, taped and written drills, and use of selected vocabulary in appropriate grammatical constructions in oral and written assignments, the student will demonstrate his ability to converse, read, write, and comprehend Spanish. By means of excursions to Mexico, the student will learn to appreciate the culture and traditions of the Spanish speaker.

Lecture: 4 hours; Laboratory 2 hours.

3a-3b

**INTERMEDIATE SPANISH****4-4 UNITS****Prerequisites: Spanish 1a and 1b or the equivalent in the judgment of the professor.**

The student will gain additional skill in the comprehension and usage of Spanish grammar and in the oral use of Spanish in everyday situations. The student will read and interpret

writings of selected Spanish authors orally and by written resume. The student will learn to respond to directions and questions in Spanish and be self-expressive in Spanish, at a rate consistent with that of a native speaker.

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

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

The student will formulate concise, clear statements expressing ideas and describing situations. The student will acquire a wide vocabulary that will permit intelligent participation in discussions of current issues and events and an ability to write his ideas clearly with a minimum of errors. Through readings of his own compositions and through oral recitations he will remedy any pronunciation defects.

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

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

The student will read the works of representative Spanish authors from the beginnings of literary works in Spain to the present, acquiring a general knowledge of the history and developments of the arts in Spain. The student will demonstrate an ability to read and analyze Spanish literary works and to interpret literature from Spain as the origin of ideas that later spread throughout the Hispanic world. The student will also acquire through his participation in class discussions proficiency in expressing ideas in Spanish and in interpretation of literary works.

## Speech

**2 FUNDAMENTALS OF SPEECH 3 UNITS**

**Prerequisite: None.**

After participating in discussions of fundamental techniques of public speaking, the student will demonstrate his ability to construct and deliver speeches of various types. The student will also demonstrate his ability to listen critically by evaluating the speeches of other members of the class and the speeches of famous speakers.

**10 PUBLIC SPEAKING 3 UNITS**

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

After participating in discussions of a review of the fundamentals of public speaking, the student will demonstrate his ability to construct and deliver various types of speeches as well as evaluate the speeches of others. The student will also



practice in and out of class toward improvement of quality and use of his voice. He will further participate in discussions and demonstrations of parliamentary procedure and public discussion.

**25**

**FORENSICS**

**1 UNIT**

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

The student will work with the instructor individually and in small groups, developing skills in one or more of the following:

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

The student will participate in intraclass competition, as well as in one or more intercollegiate contests.

## Zoology

**1a-1b**

**GENERAL ZOOLOGY**

**4-4 UNITS**

**Prerequisite: Chemistry 2a or Chemistry 12 or high school chemistry.**

By means of lectures and laboratory work, the student will learn principles of animal biology. The student will learn to classify invertebrates and vertebrates by means of a simple key. He will dissect and study representative members of almost every phylum, and he is introduced to principles of genetics, ecology, and embryology.

Lecture 2 hours, Laboratory 6 hours.

**20**

**HUMAN ANATOMY AND PHYSIOLOGY**

**4 UNITS**

**Prerequisite: None; no previous background in anatomy or physiology is assumed.**

By microscopic examination of tissues, study of charts and models, and through lectures and selected readings, the student will learn the functional uses of organs of the body. Morphological and physiological aspects of skeletal, muscular, digestive, urogenital, and nervous systems will be introduced in lectures and laboratories. Students who do not plan to specialize beyond the junior college level, such as the practical nurse, medical secretary, or medical record librarians, will find this course of value.

**40**

**MAMMALIAN ANATOMY**

**4 UNITS**

**Prerequisite: None.**

Detailed dissection of representative mammals by the student, supplemented by lectures, leads to a consideration of the structure and dynamics of the mammalian mechanism.

Lecture 2 hours, Laboratory 6 hours.

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