## Fresno City College 2002-2004 Catalog



A Public California Community College

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## INTRODUCTION


#### Abstract

Fresno City College is a college of the State Center Community College District, which operates within the broader mission of California's 108 community colleges. Fresno City College strives to be a premier learning community whose students, graduates and staff will be among the best prepared citizens to meet the challenges of an increasingly complex environment.


## The Mission of Fresno City College

Fresno City College, California's first community college, is a comprehensive learning community offering innovative instructional programs in anticipation of and responsive to the lifel ong learning needs of our diverse population. Fresno City College provides a wide variety of supportive services to assist our students in achieving their educational goals. Moreover, we are dedicated to working collaboratively with our community to enhance the economic and social development of the region.

## History of Fresno City College

The year was 1910. The old Fresno Traction Company had just added two new trolley lines in downtown Fresno. J. C. Forkner was just beginning to plant the first trees in Fig Garden. And it hadn'tbeen too long since Theodore Kearney had escorted Lilly Langtree to her performance at the city's old Barton Opera House.

1910 was also the year Fresno City College, California's first community college, was established, ultimately changing education in California.
The college's history began in 1907 when C. L. McLane, then superintendent of schools for the city of Fresno, recognized the need for college instruction for San Joaquin Valley students. Largely through McLane's efforts, Fresno

Junior College was established. The first class consisted of 20 students and three instructors.
The campus was originally located at the former Fresno High School campus on " O" Street. In 1921 Fresno Junior College combined with the then Fresno Normal School, later Fresno State College and currently California State University, Fresno, to operate the junior college on the same campus as the four-year school. Fresno Junior College continued to grant associate degrees and offer a two-year curriculum, but its campus and staff were identical with those of the normal school. In 1948 new laws permitted local school districts to operate junior colleges, and Fresno City College returned to the " 0 " Street campus, which it shared with Fresno Technical High School. By 1950 the technical high school program had been phased out and the district began looking for another campus. The junior college district completed negotiations for the purchase of the University Avenue site from Fresno State College. By 1956 Fresno City College had moved to University Avenue.
The California State Community College System has now grown to 108 campuses, enrolling approximately 1.5 million students. Fresno City College has built upon its rich history and gone on to pioneer many new developments in community college education. Thousands of local people have worked through the years to make Fresno City College a viable and strong educational institution.

## ACADEMIC CAIENDAR

## Summer Semester 2002

Fresno City College will conduct four sessions:
D-week summer session
D 6 -week summer session
D 8 -week summer session

- 10-week summer session

June 3 . $\qquad$ Instruction begins for 4 -and 10 -week classes
June 17 .... Instruction begins for 8-week classes June 28 ........................... Final examinations and end of 4 -week classes
July 1 ........ Instruction begins for 6 -week classes July 4 $\qquad$ Independence Day Holiday
(Campus Closed)
August 9 $\qquad$ Final examinations; end of 6 -, 8 - , and 10 -week classes
August 9 $\qquad$ Last day for degree and certificate of achievement candidates to file application for August 2002 completion date

## Fall Semester 2002

August 19 $\qquad$ ..Instruction begins
September 2 $\qquad$ Labor Day Holiday (Campus Closed)
October 18 .... Last day to withdraw from college or to be dropped from 18-week classes
November 11 ....................... Veterans Day Holiday (No Classes, Offices Open)
November 28-29...... Thanksgiving Day Holidays (Campus Closed)
December 16-20 $\qquad$ Final examinations
December 20 $\qquad$ End of Fall Semester 2002

December 20 $\qquad$ Last day for degree and certificate of achievement candidates to file application for December 2002 completion date December 23-January 11 $\qquad$ Winter recess

## Spring Semester 2003

January 13 $\qquad$ Instruction begins January 20 .... Martin Luther King, Jr. Day Holiday (Campus Closed)
February 14 $\qquad$ Lincoln's Day Holiday (Campus Closed)
February 17 ................. Washington's Day Holiday
(Campus Closed)
February 28 $\qquad$ . Last day for degree and certificate of achievement candidates to file application for May 2003 completion date March 14 ....... Last day to withdraw from college or to be dropped from 18-week classes
April 14-18 $\qquad$ Spring recess
(Classes reconvene April 21)
May 19-23. $\qquad$ Final examinations
May 23 ................... End of Spring Semester 2003
May 23 $\qquad$ Graduation exercises

## Summer Semester 2003

Fresno City College will conduct four sessions:
D 4 -week summer session
D 6 -week summer session
D 8 -week summer session

- 10 -week summer session

June 2.....................Instruction begins for 4- and
10-week classes
June 16 .... Instruction begins for 8 -week classes June 27 ................Final examinations and end of 4 -week classes

Note: Evening classes observe the same holiday and examination schedule as day classes.

June 30 .... Instruction begins for 6 -week classes July 4. $\qquad$ Independence Day Holiday (Campus Closed)
August 8 ........Final examinations; end of 6 -, 8 -, and 10 -week classes
August 8 $\qquad$ . Last day for degree and certificate of achievement candidates to file application for August 2003 completion date

## Fall Semester 2003

August 18 $\qquad$ .Instruction begins
September 1 .. Labor Day Holiday (Campus Closed) October 17 .................. Last day to withdraw from college or to be dropped from 18 -week classes
November 11 $\qquad$ Veterans Day Holiday ( No Classes, Offices Open)
November 27-28...... Thanksgiving Day Holidays (Campus Closed)
December 19 $\qquad$ Last day for degree and certificate of achievement candidates to file application for December 2003 completion date
December 15-19 $\qquad$ Final examinations
December 19 $\qquad$ End of Fall Semester 2003
December 22-January 7 $\qquad$ Winter recess

## Spring Semester 2004

January 12 $\qquad$ Instruction begins
January 19 .................Martin Luther King, Jr. Day Holiday (Campus Closed)
February 13 $\qquad$ Lincoln's Day Holiday (Campus Closed)
February 16 $\qquad$ Washington's Day Holiday (Campus Closed)
February 27 $\qquad$ Last day for degree and certificate of achievement candidates to file application for May 2004 completion date
March 12 ....... Last day to withdraw from college or to be dropped from 18 -week classes
April 5-9 $\qquad$ Spring recess
(Classes reconvene April 12)
May 17-21. $\qquad$ Final examinations
May 21 $\qquad$ End of Spring Semester 2004
May 21 $\qquad$ Graduation exercises


Lush surroundings, historical buildings and expressive artwork contribute to the beauty of the Fresno City College campus.

## Summer Semester 2004

Fresno City College will conduct four sessions:
D 4 -week summer session
D 6 -week summer session
D 8 -week summer session
D 10 -week summer session
June 1 $\qquad$ Instruction begins for 4- and 10 -week classes June 14 .... Instruction begins for 8 -week classes June 25 $\qquad$ Final examinations and end of 4 -week classes June 28 .... Instruction begins for 6 -week classes July 5 $\qquad$ Independence Day Holiday (Campus Closed) August 6 ........ Final examinations; end of $6-, 8-$, and 10 -week classes August 6 $\qquad$ . Last day for degree and certificate of achievement candidates to file application for August 2004 completion date

# ADMISSIONREQUREMENTS 

## College Catalog

This publication is intended to serve students and prospective students as a guide to program planning, institutional services and regulations for attendance at this institution. This catalog becomes effective with the Fall 2002 semester and ends with the Summer 2004 semester, unless otherwise amended. The college reserves the right to adjust conditions of enrollment, class offerings and services rendered as dictated by the limits of institutional resources and enrollment conditions.
Students are held individually responsible for the information contained in the catalog. Failure to read and comply with college regulations will not exempt students from whatever penalties they may incur.

Students should complete all plans for entrance as early as possible and be familiar with the following: (1) general requirements of the college, (2) special requirements in the major field of study, (3) the general requirements of the college or university they may wish to attend in the future, and (4) the most desirable electives.
Reference copies of the catalog are available in the Library, Counseling Center, Admissions and Records Office and in the offices of the associate deans of instruction and educational advisors. Students are encouraged to purchase and use their own copy of the catalog. Personal copies are for sale in the Fresno City College Bookstore.

## Admission of Students

Any graduate of an accredited high school may be admitted to Fresno City

College. Also, any person having successfully completed the California High School Proficiency Exam (CHSPE) or the General Education Development test (GED) with scores of 45 overall and with no subtest lower than 35 may be admitted.

Upon completion of applicable admission requirements, registration materials are issued by the Admissions and Records Office. For dates relating to registration, check the calendars in this catalog or inquire at the college's office of Admissions and Records in the Student Services Building, lower level.

## Provisional Admission of Students

An applicant to a district college who is 18 years of age or older and is not a high school graduate may enroll as a provisional student for 12 semester units or more for one semester, with the stipulation that in order to enroll for subsequent semesters as a full-time student, he/she must earn a 1.75 GPA in the units attempted. This regulation does not apply to part-time students.

## Summary of Admission Requirements

Full matriculation will be required of any student who intends to obtain a degree or certificate of completion at Fresno City College or to transfer to a four year college or university. Full matriculation shall require that a prospective student:

1. File a completed admission application prior to the deadline as specified in the catalog.
2. Request the last high school attended to send two transcripts of work completed or attempted if high school was attended in the last two years. Transcripts are to be official copiessent directly from the previous school to:

Fresno City College
Admissions and Records Office
1101 East University Avenue
Fresno, CA 93741-0001
3. Have the GED scores or a copy of the CHSPE Certificate sent to the Admissions and Records Office if the GED test or the California High School Proficiency Examination (CHSPE) was taken in the last two years.
4. Request each college of attendance to send two complete transcripts of work attempted whether or not credit was earned. Transcripts are to be official copies sent directly from the previous college to Fresno City College. Transcripts submitted by individuals who do not complete the registration process will be retained for one calendar year should the student wish to reapply within that period.
5. Take a placement test: see Assessment, page 14.

## Summary of Admission Requirements for Nonmatriculated Students

1. File a completed admission application prior to the deadline as specified in the catalog.
2. File two transcripts of all previous high school and/ or college academic records if the student wishes to validate that a course prerequisite has been met either in high school or at another college.

## Expenses to Students

## Enrollment Fee

The state of California mandates an enrollment fee of \$11* per unit (with no cap) be charged to all students. Fees are due on the date indicated on the student's Schedule and Fees form. Beginning the first day of the semester, however, fees are due the same day of registration.

## Health Fee

A state-mandated fee of $\$ 12^{*}$ per semester - \$9* for summer school - will be charged to each student regardless of the number of units taken. Students attending off-campus classes exclusively will be charged \$4.*
*Fees are subject to change without notice.

## Parking Fees

Student vehicles must display a State Center Community College District parking permit to park in campus parking lots. Parking permits may be purchased at the college Business Office. The fee for parking on approved parking facilities is $\$ 17$ per semester; summer semester is $\$ 8$. One-day permits may be purchased at walk- and drive-up dispensers, and metered parking is also available. Enforcement for parking permits will begin the first day of class. Fees are subject to change.
Full refunds for parking permits will be made during the first two weeks of the fall/spring semesters and the first week of the summer sessions upon proof of complete withdrawal from school. The parking permits must be attached to a Request for Refund form and returned to the college Business Office in order to obtain the refund. There is no refund for limited parking permits.

## Associated Student Body Card

Students are encouraged to purchase an Associated Student Body membership. The membership is $\$ 5$ per semester. The AS card entitles the student to participate in or attend all activities sponsored by the AS. The card can also be used for reduced admission to all collegesanctioned athletic home games (except playoffs), theatrical productions and music programs. The membership card is nontransferable. Students who are AS members and carry 12 units or more are eligible for Associated Student funded emergency loans, work programs and scholarships as available.
Arefund policy for Associated Student memberships has been adopted by the students. This policy provides for full refund during the first week of classes and onehalf refund during the second week. No refunds will be made after the second week.

## Nonresident Fee

Nonresident and international students are charged a tuition fee as follows (Education Code 76140):

## Regular and Summer Sessions

Each full unit taken: International Student Tuition ................ \$150 Nonresident Student Tuition ................... \$134
Plus Enrollment Fee per unit ......................... $\$ 11$
Note: Nonresident fees are computed each year in accordance with a state mandated formula and are therefore subject to change. Contact the college Business Office for current information. Fees are subject to change without notice.

10 Fresno City College
Admission Requirements
A "nonresident" student is a student who has not resided in the state for more than one year immediately preceding the first day of the regular semester/summer session (Title 5, Section 54002), or has not demonstrated evidence of intent to be a California resident.

All international students must also have proof of domestic health insurance coverage in the amount prescribed by Board policy (which includes repatriation). Contact the International Students Office, Student Services Building, Admissions and Records, Counter B.

Community college nonresident fees are due and payable to the college Business Office prior to completion of registration. Nonresident fees are payable via money order, certified check, cash or credit card.

Authorized apprenticeship students are exempt from nonresident tuition fees for apprenticeship courses only.

## Refund of Enrollment Fees and Tuition

Refund or reversal of enrollment fees and tuition shall be made in accordance with the schedule listed below for reduction in program or withdrawal from class( es) and shall be initiated upon receipt of a written request submitted by the last day of the semester to the college Business Office. Requests may also be made online at www.fresnocitycollege.com.

Refund requests require an audit of the student's record to verify balance. Credit balances may be applied or carried forward to the new term in lieu of a refund and will remain on the books for three years.

## Primary Term-Length (Full Semester) Classes, 16-18 Weeks

(a) Withdrawal during the first two weeks of the semester $\qquad$ 100\% refund
(b) Withdrawal after the second week of the semester $\qquad$ no refund

## Summer/ Short Term Classes

State code defines the drop deadlines required to qualify for fee refund/reversals for short-term classes as on or before 10 percent of the duration of the class.
D A100\% refund is given upon withdrawal by the 10 percent point.
D No refund is given after withdrawal beyond the 10 percent point.

## Class Change(s)/Exchange(s) Primary

 Term-Length ( Full Semester) Classes OnlyUnit-for-unit tuition and enrollment fee-paid credit shall be given for class change( $s$ )/exchange( $s$ ) com-
pleted during the add/drop period through the third week of instruction. Class changes made during the fourth week or later are subject to full tuition and fees for each class added.

## Refund of Health Fee

Students receive a refund upon complete withdrawal from all classes in accordance with the enrollment and tuition fee refund schedule listed above.

## Instructional Materials Fees

In accordance with Title 5, Section 59404(b), Fresno City College may require students to provide materials that are course-related, including, but not limited to, textbooks, tools, equipment and clothing. Such materials will be required if:

1. The instructional or other materials are used in the production of a course-related project or "end product" that has continuing value to the student outside of the classroom setting; or
2. The instructional and other materials required for the class have a continuing value to the student outside of the classroom setting.

## Matriculation

Fresno City College strives to make students aware of the varied educational programs that are offered and to provide smooth access to these programs. Once enrolled, the college provides many services to ensure success.

All new first-time college students may choose to matriculate. Matriculation is the process that brings Fresno City College and each student into an agreement for the purpose of realizing the student's education objectives.

With the State Matriculation Plan, Fresno City College provides:

- An admission process
- An assessment of basic educational skills and career goals
D Orientation to college programs, services and procedures
D Individual counseling to the development of an Student Educational Plan
D Continuous follow-up on student progress with referral to support services as necessary

As their part of the Matriculation Plan, students agree to:
D Complete the placement test and assessment process

- Declare a specific educational objective within a reasonable period of enrollment
- Attend an orientation session

D Attend counseling sessions during the first two semesters of college prior to registration to develop and refine a Student Educational Plan
Students may be exempt from various matriculation components. See a counselor to review exemption criteria. Any student may seek waiver from the matriculation process. Visit the Counseling Center for more information.

## Student Appeals Procedure

Students may request, in writing, to waive orientation, counseling and testing or assessment. Students will meet with a counselor to discuss the student's request for exemption. If both the counselor and student agree that an exemption is warranted, an exemption form will be signed by both parties; if a disagreement ensues, the student will be allowed to appeal to the associate dean of students for counseling and guidance, and the student will discuss the student's request and resolve it during this meeting. In every case, the student has the right to be exempted from matriculation components, although the counselor and/or dean may believe that participation is in the student's self-interest and would be beneficial in helping the student to select appropriate classes.

## Residence

By law, every student must file a statement declaring his/ her residence status. The form for such a statement is included in the admission process.
A maintenance allowance is available for students attending Fresno City College whose permanent residence is in a California nondistrict territory (district without a community college) and who live more than 60 miles from the "nearest community college attendance center." For further information, contact the Residence Office, room 111, Student Services Building, lower level. (California Education Code 76160 Rev. 83).
It is recommended that all students whose legal residence is outside of the State Center Community College District have a health and accident insurance policy while attending Fresno City College. If the student does not have health and accident insurance, he/she may sign up and pay for such a policy in the office of the Dean of Students.

## Other Information

1. No placement examination is required as a condition for admission to the college. However, see page 14 for information about placement in English and math classes.
2. Fresno City College is a member of the San Joaquin Valley Community College Council for Occupational Education, and cooperates with the 11 -member colleges in providing free interchange of vocational students among the various campuses. Out-of-district students should apply through their campus council representative for complete information.

## Registration

A student will receive approval from the Admissions and Records Office to be admitted. This approval is in the form of specific preregistration and registration instructions mailed or given to the student after the student has completed all admission requirements. Registration materials are issued in March through July for the summer/fall semester and in October through January for the spring semester. Information concerning registration procedures will accompany the notice of admission to college. Further information can be found in the class schedule.
A counselor or educational advisor is available to assist students each semester. Students may obtain counseling assistance by contacting the Counseling Center.
Students who are first to complete admission requirements are granted first opportunity to register and select courses.
The Family Education Rights and Privacy Act makes it illegal for the college to release a student's confidential educational records to anyone without express written permission of the student. If a student is unable to register at his/ her appointed time, a substitute may be appointed provided the proper procedure is observed; contact Admissions and Records Office for the specific procedure to follow.

## Registration Priority

Registration priority for students is determined in accordance with the following criteria:

1. Students in special programs where priority registration is mandated by state code or Board policy, e.g., DSP\&S, EOP\&S, Honors Program;
2. Currently enrolled students based on a graduated combination of units completed and grades achieved;
3. Noncurrent students (new, transfer, and returning former students) in the order in which they complete application requirements.
All students will be notified of their assigned registration appointment date.

Consult the class schedule or contact the Fresno City College registration staff for details on starting dates for the groups listed above.

## Honors Program Admission

High-achieving students are encouraged to apply for admission to Fresno City College's Leon S. Peters Honors Program. The College's Honors Program Advisory Committee reviews applications, interviews candidates and recommends the students who are to be accepted into


Fresno City College offers a wide variety of classes to meet the students' needs. Weekend and evening classes are available for those who work during the day.
the Honors Program. The following admissions requirements are considered in determining acceptance into the Honors Program:

- GPA of 3.5 ( 4.0 scale), or

D Graduation from high school in the top 25th percentile, or
D Combined scores of 1000 on the SAT or a composite score of 25 on the ACT, and
D Superior performance in writing an essay, and

- Three letters of recommendation, and

D Eligibility for English 1A, and

- Successful interview by the Honors Program Advisory Committee.
For program details, see Honors Program, page 284, in this catalog and consult with the Honors Program Director by calling 442-8207.


## Intra-District Transfer

Fresno City College students who plan to transfer to Reedley College for the ensuing semester will receive the same service and priority as currently enrolled Reedley College students. It is advised that any transfer student see a counselor.

## Concurrent College Enrollment

Students planning to attend Fresno City College and another college (other than Reedley College) at the same time are required to obtain a concurrent enrollment authorization form from the college where the major number of units will be taken.

Forms are available at the District Dean of Admissions and Records Office in the Student Services Building, ST-111, for students who will be taking the majority of units at Fresno City College.

Reedley College offers a number of courses and programs not available at Fresno City College. Students may attend both colleges concurrently without following the procedure described above.

Students may contact their counselors for more specific information on procedures to be followed.

## Air Force and Army ROTC Studies

Fresno City College students may register for classes designed for those who wish to explore becoming an officer in the United States Air Force or the United States Army. These classes are conducted at California State University, Fresno and at Fresno City College. Students must be in good academic standing and be enrolled at Fresno City College. Interested students should contact
the Fresno City College Admissions Office, ST-111, to obtain more information on how to register for these classes.

Fresno City College will accept the units as general elective units toward the AA or AS degree. The freshman and sophomore courses are non-obligation and allow students to experience what the Air Force or Army might be like should they decide to continue with the program and earn a commission. A number of scholarships are available through both programs.

Consult the Aerospace Studies Department (278-2593) or the Military Studies Department (278-2887) at CSUF for information on courses offered and class meeting times.

## Transfers from Other Colleges

Students who have previously attended another college and are in good scholastic standing are eligible to enroll at Fresno City College, subject to residence requirements. Students who have been disqualified by another college or who have achieved a cumulative grade point average less than 1.75 for three consecutive semesters or quarters or whose grade points are a negative 15 or more will not be admitted at Fresno City College in the semester immediately following their attendance at the other college. After one semester's absence, such students may be admitted upon petition to the Counseling Department. Records for transfer students are evaluated with regard to the scholastic status system in use at Fresno City College at the time of enrollment. It is important to note that transcripts received with "work in progress" are not considered as complete.

## Special Counseling Student Status

High school graduates who have maintained a grade point average of less than " C " (2.0) during their last three years in high school will be admitted on a special counseling student status for their first semester in college. Students so identified will be limited to 12 units, unless, for their first semester, their college counselor recommends otherwise.

## Developmental Education Program

The Developmental Education Program is designed to prepare students for degree-credit instruction. The program is recommended for students who are assessed as not meeting the skills requisites for Math 101 or English 125 and 126 or 153. It is not recommended for students who are learning English as a second language or who have identified learning disabilities.

Initial placement into the Developmental Education Program depends upon English and mathematics placement testing results. Other courses in the program are then recommended, according to student needs and interests.
The English and math placement tests are administered by the Assessment Center. Please call 4428282 for dates and times.

For program details, see Developmental Education Program, pages 21 and 284, in this catalog.

## International

## Students

An application, official documents and detailed transcripts of record should be submitted to the International Students Office no later than two months prior to the beginning of the semester for which the student is being considered for admission: June 1 for fall semester and November 1 for spring semester. Astudent from another country is not admitted until notified of admission in writing by the International Students Office. It is required that international students achieve a minimum score of 500 on the Test of English as a Foreign Language (TOEFL) for regular standing. TOEFL scores below 500 may be approved by special action. When an international student arrives at Fresno City College, the student should report first to the International Students Office.
At the time of registration, each student must have evidence of health insurance and have complied with the district policy regarding tuberculosis testing and current measles immunization. It is also mandatory that each student successfully complete an English course during each semester at Fresno City College until graduation requirements have been met for program completion or for transfer purposes and that the student maintain 12 units or more each semester.
Health insurance claims must be initiated at the International Students Office, Student Services Building, lower level.

14 Fresno City College Admission Requirements

# English as a Second Language (ESL) Program 

## Purpose

The ESL program is designed for students whose native language is not English. The program assists students to acquire the necessary English language skills to succeed in AA/AS degree programs, vocational programs and university transfer courses offered at Fresno City College.

## Description

There are five levels of ESL in the program: Beginning (ESL 262), low-intermediate (ESL 263R/263W), intermediate (ESL 264R/264W),

Yog koj xav paub kev xeem ntawv (Assessment), thov mus cuag tau Counseling Department.

Si necesita información en español para su evaluación, favor de ponerse en contacto con el Departamento de Consejeros.
advanced-intermediate (ESL 265R/265W), and advanced (ESL 67 and 68). ESL 263R, 264R, and 265 R offer instruction in vocabulary and reading. ESL 263W, 264W, and 265 W offer instruction in grammar and writing. ESL 68 emphasizes reading skills and ESL 67 emphasizes writing skills.

## Credits/ Units

Students earn college credit (units) in all ESL program courses. ESL 67 and 68 fulfill part of the general education requirements for the AA/AS degrees. ESL 67 and 68 establish eligibility for English 1A.

## Placement

Initial placement in ESL course offerings is the result of language testing and other criteria. This test is administered by the Counseling Center at the same time as the English Placement Test. Please call 442-8282 for dates and times.

## Community College-High School Enrichment Program

Current high school juniors and seniors may be admitted to the college through the Community College-High School Enrichment Program. High school students can obtain information from their high school counselor or from the college's College Relations office. Call 442-8225 for details.

In addition to the regular semesters, high school students are eligible for the summer session prior to their junior year and the summer session between their junior and senior years.

## Assessment

It is highly recommended that students planning to take an English class, a math class or a class that has an English or math prerequisite take an English/math placement test prior to registration if they have not met the class prerequisite by other means. This test is administered through the Counseling Center.

A schedule of testing times and dates is established at the beginning of each month. Please contact the Counseling Center's testing information hotline at 442-8282 for dates, times and locations.
Test scores are used for counseling purposes and to assist with correctly advising students' class placement. These tests are not entrance examinations, and the results will not prevent any prospective student from admission to the college or from enrolling in any course. If possible, the placement tests should be completed well before registering for classes so that courses can be approved by a counselor on the registration form.

After a student takes the placement test, he/she will discuss the test results and answers to the assessment survey with a counselor. If the student thinks that the assessment results do not reflect his/her true ability, he/she may discuss this with the counselor. A student may decide to retake the test or make a course selection based on the total assessment with the counselor.
If a student wishes to take a class other than the one recommended by the assessment process, the student may discuss this with the counselor. If he or she agrees, the counselor will approve the student's entry into that class. If the counselor does not agree, the student may appeal the counselor's recommendations to the associate dean of counseling and guidance by completing the Pre requisite/Corequisite Challenge Petition (available from the Counseling Center or from a counselor). The student will have a chance to present his/her case to the Dean at which time a decision will be made as to whether to enroll in the class.

Students who plan to transfer to a baccalaureate institution prior to the completion of 56 transferable units at Fresno City College are encouraged to take the ACT (American College Test) or the SAT (Scholastic Aptitude Test) of the college board.

Students who are unsure of their academic or vocational goals are encouraged to:

1. Take the Strong Interest Inventory ( available in the Career Center, second floor, Student Services Building).
2. Sign up in the Career Center to use the DISCOVER system. (For example, Module 3 of this system offers interest, ability, experience and values inventories.)
3. Take the EUREKA "QUEST" to initiate a career search. This 21 -item questionnaire is designed for users who know themselves and know what characteristics they are looking for in a career field.
4. See a counselor.
5. Take Guidance Studies 48 , Career Planning.
6. Take the placement test for Math and English. Contact the Assessment Center at 442-8280 for further information.

## Evening Classes

The purpose of evening classes is to assist students to develop vocationally, to train students for employment, to satisfy requirements for a college degree and to provide opportunity for cultural enrichment. Course content, time necessary for preparation of assignments, textbooks, attendance and regulations parallel day class requirements.
Students in an evening program register for college credit. They must assume the responsibilities of attending classes regularly and of spending adequate time outside the classroom for preparation.
In addition to the courses paralleling regular day offerings, the evening program also includes apprenticeship training and trade extension courses in related trade occupations. Registration procedures for evening classes are the same as those for day classes.

## Summer Units Allowed

All students are limited to 18 units in all summer sessions, with no more than 8 units allowed in a fourweek session. Disqualified students and students on probation are required to have a counselor's approval before registering for any summer session(s). Disqualified students and students on probation who have obtained a counselor's approval to register for any summer session(s) must also have a counselor's approval before adding any class(es) in any summer session(s).

## Readmission

Former students of Fresno City College returning after an absence of one or more semesters must make formal application for readmission. Official transcripts of work taken at any other institution (including summer session and extension or correspondence courses) since the date of last enrollment at Fresno City College must be sent in duplicate from the previous schools to the Fresno City College Admissions Office, 1101 East University Avenue, Fresno, CA 93741-0001.

## Student Right-to-Know And Campus Security Act

In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of the State Center Community College District and Fresno City College to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 1997, a cohort of all certificate-, degree-, and transfer seeking firsttime, full-time students was tracked over a three-year period. Their completion and transfer rates are listed below. These rates do not represent the success rates of the entire student population at Fresno City College, nor do they account for student outcomes occurring after this three-year tracking period.
Based upon the cohort defined above, 30.2 percent attained a certificate or degree or became 'transfer prepared' during a three-year period, from Fall 1997 to Spring 2000. Students who are 'transfer prepared' have completed 56 transferable units with a GPA of 2.0 or better.
Based on the cohort defined above, 21.5 percent transferred to another postsecondary institution (UC, CSU, or another California community college) prior to attaining a degree, certificate, or becoming 'transferprepared' during a five-semester period, from Spring 1998 to Spring 2000.
Annual reports of criminal activity on campus and procedures for prevention of campus crime, as required by the Crime Awareness and Campus Security Act of 1991, are available, on request, from the college Police Department.

# ACADEMICREQUREMENTS 

## Course Load

The normal semester load is 15 units. Students with regular admission status who are not on academic probation may take as many as 18 units. Students on academic probation are normally limited to 12 units.
Permission to enroll in excess of 18 units is granted only when unusually high scholarship and urgent need prevail. Counselors can approve a student request to take 19 to 21 units. Students who wish to take 22 or more units may obtain a petition for this purpose in the Counseling Center.
The student who desires to be a candidate for graduation in two years must carry an average of 15 units per semester. The following classifications have been established:

Freshman $\qquad$ fewer than 30 units completed
Sophomore $\qquad$ 30 or more units completed

All students are limited to 18 units in all summer sessions, with no more than 8 units in a four-week session.

Students who work are urged to be realistic in bal-


Group and individual tutoring are available in the Tutorial Center to aid students in their classes.
ancing the number of academic units undertaken in view of outside hours of work. Normally, each unit undertaken requires two hours of outside study for each hour of class lecture.

## Grading System

The college uses the five-letter grading system. Letters $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and CR indicate passing grades; NC indicates no credit; F indicates failing. Units earned/allowed are awarded for grades of A, B, C, D, or CR. Grade points are assigned for each unit of course work undertaken as follows:
A Excellent $\qquad$ 4 grade points per unit
B Good. 3 grade points per unit
C Satisfactory ................ 2 grade points per unit
D Passing....................... 1 grade point per unit
F Failing....................... 0 grade points per unit
W Withdrawal................. 0 grade points per unit
WM Withdrawal Military .. 0 grade points per unit
I Incomplete................. 0 grade points per unit
CR Credit.......................... 0 grade points per unit
NC No Credit $\qquad$ 0 grade points per unit
X Noncredit Class Completed. $\qquad$ 0 grade points per unit
IP In Progress. $\qquad$ 0 grade points per unit
RD Report Delayed. $\qquad$ 0 grade points per unit

The grade point average (GPA) is computed by dividing the total number of grade points earned by the total number of units attempted. Units for which a grade of W, WM, IP, RD, I, X, CR or NC is received do not count as units attempted for GPA purposes.

The instructor's grades are permanent. Once they have been transmitted to the district dean of admissions and records, they are not subject to change by reason of
revision or judgment by the instructor or on the basis of a second examination or additional work. Computational errors in grades may be changed by instructors with administrative review.

## Student Grade Review Petition

If a student is of the opinion that a grade received for a particular course is improper, the student may take action as follows:

1. Discuss the grade received with the instructor involved, or
2. Obtain a Student Grade Review Petition from the Admissions and Records Office. Complete the form and return it for processing no later than the last day of the semester (excluding summer sessions) following the semester for which the grade was received. The student will be issued a receipt copy of the form being submitted and will be notified of action taken.
3. If a student wishes to appeal the decision, the student may submit a written grievance. See Student Grievance Procedure on page 18 and follow the four steps listed.

## Satisfactory Scholarship

Students must achieve at least a " C " average each semester and maintain a 2.0 cumulative grade point average. This means that a student must have at least twice as many grade points as units attempted. See Placement on Academic Probation.

## Provisional Student Status

Non-high school graduates who enroll as full-time students must maintain at leasta 1.75 grade point average in order to enroll for subsequent semesters as full-time students.
Please see Provisional Admission of Students, page 8, for more information.

## Satisfactory Progress

State law requires students to maintain satisfactory progress while enrolled at a community college. Students who do not make satisfactory progress by completing courses and/or achieving satisfactory grades will be affected in the following ways:

## Placement on Progress Probation

A student who has attempted and accumulated a total of 12 or more semester units shall be placed on progress probation when the number of units for which entries of " W ," "I" and "NC" are recorded reaches or exceeds fifty percent (50\%).

## Removal from Progress Probation

A student on progress probation because of an excess number of units for which entries of " W ," " I " and " NC " are recorded shall be removed from probation when the percentage of units in this category drops below fifty percent (50\%).

## Placement on Academic Probation

Astudent shall be placed on academic probation when:

1. The cumulative grade point average for a student who has attempted an accumulated total of 12 or more semester units falls below 2.0 in all units which were graded on the basis of letter grades, or
2. The student's semester grade point average falls below 2.0 in two consecutive semesters. The student will be subject to being placed on "subject to being disqualified" status.

## Removal from Academic Probation

A student shall be removed from academic probation when the student's cumulative grade point average becomes 2.0 ( "C") or better.

## Counseling for Probationary Students

Each student on probation will be provided counseling and guidance service, including regulation of the student's program according to individual aptitude and achievements as determined by the counseling office. Students subject to dismissal shall have all selected courses approved by a counselor prior to registration. In addition, students who have completed 40 units or more and are on probation must have all selected courses approved by a counselor. Astudent on probation, whether academic or progress, may not carry more than 12 units without special approval of a counselor.

18 Fresno City College Academic Requirements

## Academic/ Progress Dismissal

For purposes of this section, semesters shall be considered consecutive on the basis of the student's enrollment exclusive of summer session.

1. A student who has enrolled in at least 12 semester units shall be dismissed for one semester, exclusive of summer session, if during each of three consecutive semesters the student's performance falls under either one or any combination of the following two conditions:
a. The student's cumulative grade point average was 1.75 or less.
b. The percentage of units in which the student was enrolled for which entries of "W," "I" and "NC" were recorded reached or exceeded fifty percent (50\%).
or
2. Astudent who has enrolled in at least 24.0 or more units who is 15.0 or more grade points below a 2.0 grade point average shall be dismissed for one semester exclusive of summer session, unless during the last semester of enrollment the student earned a semester grade point average of 2.0 or better.

The dismissal status of a student admitted by transfer will be determined by the standards of this college and not by the standards of the former college of attendance.

## Readmission Following Academic/ Progress Dismissal

A student who has been dismissed because of the district's academic/progress dismissal policy must petition to be reinstated.

Following the student's first dismissal, he/she will not be admitted to a district college until one semester has elapsed. If the student fails to maintain a grade point average of at least 2.0, or fails to complete more than fifty percent (50\%) of the units in which the student enrolled during the first semester of attendance following his/her initial dismissal, the student shall be dismissed for a period of one year. If the student fails to meet these academic and progress standards during the next semester in which he/she enrolls, the student will be dismissed again. This third dismissal shall be considered permanent. However, a student may petition for admission after two years. Students are encouraged to improve their record by attending summer session. Petitions for readmission are available at Admissions and Records, or in the Counseling Center. Unit limitations and course
selection will be set for readmitted students by the counseling staff.

## Appeals and Exceptions

1. Students who are on academic or progress probation for personal reasons beyond the control of the student shall, upon successful appeal, be exempted from the conditions of time imposed above.
2. Students on probation, either academic or progress, will not be dismissed after their third semester of below satisfactory work if during that third semester and every subsequent semester they maintain a 2.0 GPAand complete more than $50 \%$ of their units until their cumulative GPAand completed units are above the probationary level.

## Student Grievance Procedure

The student grievance procedure is established to allow student redress of grievance in cases of rejected grade appeal or alleged unprofessional conduct. A student who has a grievance may take action in the following sequence:

1. Discuss the problem with the individual involved.
2. If a mutually satisfactory understanding has not been reached, the student may submit a Student Grievance Petition to the appropriate supervisor of the area of concern.
3. The supervisor will send the Grievance Petition form to the appropriate staff member involved who, in turn, will respond in writing to the supervisor within five (5) working days. The supervisor will send a copy to the student.
4. If the student is dissatisfied with the response, the student may submit the grievance, in writing, to the supervisor. The supervisor will respond within five (5) working days.
5. If the student is still dissatisfied after taking these steps, the student may submit the grievance, in writing, to the District Dean of Admissions and Records, District Associate Dean of Financial Aid, Dean of Instruction, Dean of Students, or Business Manager, whichever is appropriate, who will respond in writing.
6. As a final step, the student may submit the grievance, in writing, to the Academic Standards Committeefor academic matters or for nonacademic matters to the College President, who will also respond in writing.
7. The College President has final authority.

Note: Grievance Petition forms for this procedure are available in the office of the District Dean of Admissions and Records, in the office of the Dean of Students, in the office of any Associate Dean of Students, in any division office, and/or in any director's office.
A Grievance Petition form may not be filed later than 30 days after the beginning of the fall or spring semester following the date of the grievance.

## Course Renewal

An open-door college should provide ample opportunity for students to succeed. Since the community college admits students with a diverse range of abilities, aspirations and interests, the college must provide sufficient flexibility in its policies to enable a student to overcome a poor academic record. While the college must have a balance between policy flexibility and the maintenance of academic regulations so as to ensure 13th and 14th grade standards throughout the curricula, this flexibility cannot be allowed to abrogate the individual student's educational responsibility.

## Alleviation of Substandard Grades

Substandard work, i.e., grades of D, F, or NC, not reflective of a student's present level of scholastic performance, may be alleviated and disregarded in the computation of grade point averages. It is expected that students will alleviate substandard work by repeating, i.e., retaking the course(s) in which grades of D, F, or NC are earned. Course work that is still appropriate for the student's present educational objectives may be alleviated only by repetition. Course work inappropriate for repetition may be alleviated without repetition by the student making formal application to the Academic Standards Committee through the Office of Admissions and Records. When academic work is alleviated, whether by repetition or without repetition, the permanent records shall be appropriately annotated in a manner to ensure that all entries are legible and that a true and complete record is maintained.

## Alleviation by Repetition of a Course for a Better Grade

For the benefit of a better grade, students may repeat college courses in which they have received grades of D, F, or NC by re-enrolling in the courses. Students may repeat courses in this way up to two times. Students who wish to repeat courses more than two times in order to earn grades better than D, F, NC, or W may
do so only by petition to the college Academic Standards Committee through the Office of Admissions and Records. The grades in the courses which have been repeated are then recorded within brackets on the students' permanent records so that the substandard grades remain legible on the permanent records, although they are not used in the computation of the cumulative grade point average. A statement is included on the permanent records explaining that bracketed course grades and unit values are not included in the computation of the cumulative grade point average. Students should be aware that other colleges or universities may not treat repeated courses in the same manner. Actions taken by the Academic Standards Committee of this college do not supersede the repetition policies of other educational institutions.

## Academic Renewal Involving Other Colleges

If a student who has earned a grade of D, F, or NC in a course at this college repeats the course for a better grade at another college, the student must petition the Academic Standards Committee of this college through the Office of Admissions and Records for the alleviation of the substandard grade.
If a student who has earned a grade of D, F, or NC in a course at another college repeats the course for a better grade at this college, the student must request that a Fresno City College transcript showing the renewed course grade be sent to the college where the substandard grade was earned and petition for academic renewal at the other college. After the course record at the original college has been adjusted, the student must request that an amended transcript be sent to the Office of Admissions and Records at this college so that the cumulative transfer units and grade point average may be corrected.

## Alleviation of Substandard Grades without Repetition

Substandard work, i.e., grades of D, F, or NC not reflective of the student's present scholastic level of performance, may be alleviated without repetition only if the courses in which the substandard grades were earned are no longer appropriate for the student's present educational objectives or if the courses in which the substandard grades were earned or their equivalents are no longer available for repetition. Course work inappropriate for repetition may be considered for alleviation by the student making formal application to the college Academic Standards Committee through the Admissions and Records Office.

In this case, a student will be eligible for consideration for alleviation of substandard work without repetition when the student has met the following conditions:

1. A period of at least two years has elapsed since the work to be alleviated was recorded.
2. A student is pursuing an established program (associate degree or certificate program at the college).
3. A student has completed twelve or more semester units with at least a 3.00 GPA or 24 or more semester units with at least a 2.50 GPAor completed a total program with at least a 2.00 GPA . In determining eligibility for this provision, the college will consider the most recently completed semester first and then look to the total GPA of previous semesters in descending chronological order.
4. The amount of work to be alleviated shall not exceed the amount of work the student has successfully completed since the substandard work was recorded.

## Repetition of Courses Successfully Completed

The college catalog designates certain courses as repeatable for a specific number of times; otherwise, courses in which a student has received satisfactory grades, i.e., $A, B, C$, or $C R$, may not be repeated unless the student petitions the college Academic Standards Committee through the Office of Admissions and Records for permission to repeat the course. The Academic Standards Committee may grant permission for the student to repeat the course if one or more of the following conditions apply:

1. There has been a significant lapse of time since the course was last taken.
2. The previous grade was due, at least in part, to the result of extenuating circumstances beyond the student's control.
3. Course repetition is required as a special academic accommodation for a qualified Disabled Students Programs \& Services student.

In the case of repetition of courses successfully completed, the grade earned when the course is repeated will not be counted in a student's cumulative units or grade point average.

Repetition of courses successfully completed is permitted without petition in instances when such repetition is necessary for a student to meet a legally mandated training requirement as a condition of continued paid or volunteer employment. Such courses may be repeated any number of times, regardless of whether or not
substandard work was previously recorded, and the grade received each time shall be included in the calculation of the student's grade point average. Students wishing to repeat courses under this condition must present written documentation or certification to the manager of the college Office of Admissions and Records/Dean of Admissions and Records to verify that such course repetition is necessary to complete legally mandated training requirements.

## Incompletes

A student may request a grade of incomplete (I) in a course if all of the following conditions are met:

- The student has completed all buta minimal amount of the course work required for a final semester grade.
- The student has a serious and verifiable reason for not completing the assigned course work.
D The student has a passing grade at the time the incomplete is granted.
- No additional class time is required for completion of the course.
The grade of incomplete (I) will be granted only on approval of the course instructor. The instructor will specify, on the appropriate form, a list of conditions necessary for removal of the incomplete grade. The instructor will specify the grade to be assigned if the listed conditions are not satisfied within the allotted time period. When the conditions have been met (within the time specified), the instructor will assign an appropriate grade.

An incomplete grade must be replaced by the appropriate letter grade no later than one full semester after it has been granted, though earlier limits may be set by the course instructor. Students may not re-enroll in the course for which they have received an incomplete (I) during the time that the incomplete is in effect.

## Credit/ No Credit (CR/NC)

All courses taught at Fresno City College may be offered for either Credit/No Credit or traditional grades, at the discretion of the administration. The Credit/No Credit option is not recommended for a course in one's major.

A maximum of 12 units may be earned on a Credit/ No Credit basis. These units will also be allowed toward an AA or AS degree. Such units shall be disregarded in determining the student's GPA at this institution. Students planning to transfer to another college or
university should be aware of the policy of that institution regarding transferability of courses with Credit/No Credit grades.

A grade of CR will be given if the student has passed the course with a grade equivalent level of " C " or better. A student who receives a grade of CR will be given credit for the unit value of that course.

The student will receive a grade of NC if the student's work has been at the D or F level. A student who receives a grade of NC will earn no units for that course.

A student desiring to change a course to or from a Credit/No Credit basis must provide notification to the Admissions and Records Office, using the appropriate form, which is available at the Admissions and Records Office, within the first 30 percent length of the class. Examples follow:

For a regular 18-week class ......... By end of fifth week
For a 9 -week class........................ By end of third week
For a 6 -week class..................... By end of second week
For a 2-week class $\qquad$ By the third day
For a class less than two weeks
At time of class registration
Once the above deadline has passed, the decision cannot be reversed.

## Developmental Education Program

## Purpose

The Developmental Education Program is designed to prepare students for degree credit instruction. The program is recommended for students who are assessed as not meeting the skills requisites for Math 101 or English 125 or 126 or 153. It is not recommended for students who are learning English as a second language or who have identified learning disabilities.

Initial placement into the Developmental Education Program depends upon English and mathematics placement assessment results. Other courses in the program are then recommended according to student needs and interests.
The English and math placement assessment process is administered by the Assessment Center. Call 442-8282 for dates and times.

## Description

There are five kinds of courses in the program to prepare students for college-level instruction:

1. English written expression
2. Reading
3. Mathematics
4. Exploratory courses which reinforce reading and writing skill development
5. Other courses that help students learn successfully.

There are two levels of instruction in both the reading and writing areas, a basic level and an improvement level. The particular courses a student takes depend upon the individual's needs as revealed in the college's assessment process. English 252 may be used to establish eligibility for English 125, while English 262 may be used to establish eligibility for English 126. English 252 and/or 262 may be used to establish eligibility for English 153. Math 260F or 250 establishes eligibility for Math 101.

## Credits/ Units

Course credits earned in the program do not count for the associate degree but do count for determining full- or part-time student status (i.e., workload credit).

## Honors Program

The Leon S. Peters Honors Program at Fresno City College recognizes and meets the needs of academically gifted students. Students who qualify, and are accepted to enter the Honors Program, benefit from an enriched educational experience that consists of a specially selected curriculum set within the framework of the transfer programs of all University of California and California State University campuses. Special honors sections of regular classes usually have 25 or fewer students per section. They are taught by specially selected, experienced and highly qualified faculty. The entire program can be completed in four semesters. Entrance into the program is competitive. For additional details about the benefits, requirements, and curriculum, see the Honors Program section in this catalog, and consult with the Honors Program Director, who can be reached by calling 442-8207.

> All courses taught at Fresno City College may be offered for either Credit/ No Credit or traditional grades, at the discretion of the administration.

## Work Experience

Work experience and field work credit may be earned in some designated courses. Refer to page 283 for details.

## Travel-Study Credit

Credit granted by accredited colleges and universities for travel-study programs sponsored by these institutions will be accepted by the District. For college-level travel-study programs credit up to 12 semester units (at the maximum rate of one unit per week) may be granted upon the evaluation of official transcripts sent to Fresno City College by the institution through which the units are earned.

## Articulation with High Schools (2+2)

Fresno City College has entered into course-specific articulation agreements with a number of local high schools whereby students may gain college credit for articulated courses taken in high school once they have successfully completed 12 units of on-campus college classes.

Upon completion of one of these articulated courses at the high school, a certificate acknowledging that fact will be awarded. The certificate should then be turned in to the college's Office of Admissions and Records after completion of the necessary 12 units of college credit.

## Credit by Examination

To be eligible for credit by examination, a student must be enrolled at the college and be in academic good standing during the semester in which he/she applies for credit by examination.

A student may receive credit by examination for certain courses listed in the catalog. See the appropriate division office for information relative to which courses may be challenged and the proper procedure for challenging, or consult your counselor.

Such challenge will not be allowed if the student has received previous high school or college credit for the course, or if the student has already successfully completed or is currently enrolled in a course for which the course to be challenged is a prerequisite. The college also reserves the right to deny the challenge to any specific course in the curriculum.

Astudent planning to transfer to another college or university should be aware of the policy of that institution regarding transferability of courses.

Application for credit by examination, approved by the instructor, the department chair, and the appropriate division/associate dean, must be filed with the Office of Instruction no later than the end of the sixth week of the semester. Applications are not accepted during summer.

Once approval has been granted and the fee paid, if the student is enrolled in the course he/she is challenging, he/ she must withdraw from that course.

Afee of $\$ 10$ for the first unit plus $\$ 5$ for each additional unit, payable by the end of the ninth week of the semester, is charged for each course challenged. An additional $\$ 11^{*}$ per unit fee is required by state law.

Students must arrange with the instructor to take the examination prior to the fifteenth week of the semester. Aletter grade (A-F) will be awarded, which will be entered on the student's transcript in the same manner as any other course.

* Fees are subject to change without notice.


## Advanced Placement Program (AP)

Courses offered through the College Entrance Examination Board are recognized and individual colleges of this district are authorized to award appropriate placement and/or credit for these courses in accordance with established college standards. Petitions to apply for credit may be obtained from the Admissions and Records Office.

A residency of 12 units of satisfactory work ("C" average) must be completed at Fresno City College prior to allowance of credit under this program. Currently, AP credit is granted as follows:

[^0]| Music | 3,4 or 5 Music 12 or 13 |
| :---: | :---: |
| Music Theory | 3 , 4 or 5 Music 1A |
| Mathematics, Science and Engineering Divisir |  |
| Biology | 3,4 or 5 Biology 1 |
| Chemistry | 3,4 or 5 Chemistry 1A |
| Calculus AB | 3,4 or 5 Math 5A |
| Calculus BC | 3,4 or 5 Math 5B |
| Physics B | 3 Physics 2A |
| Physics B | 4 or 5 Physics 2A-B |
| Physics C | 3 Physics 4A |
| Physics C | 4 or 5 Physics 4A-B |
| Social Science Division |  |
| American History | 3, 4 or 5 History 11-12 |
| European History | 3,4 or 5 History 2 |
| Macroeconomics | 3, 4, or 5 Economics 1A |
| Microeconomics | 3, 4, or 5 Economics 1B |
| Psychology | 3, 4, or 5 Psychology 2 |
| Note: AP credit in American Government does meet the |  |
| Constitution re didates (Ed. C satisfy the requi it does not add Code Sec. 4040 fornia State Un local governm the University | irement for teaching credentia Sec. 13132). However, it do rements of Political Science 2 bect ess state and local requiremen . Candidates seeking a BA at ersity must satisfy national, sta t requirements. The requirem California vary by campus. |
| College-Level Examination |  |
| rogram | E) |

The College-Level Examination Program (CLEP) is designed to be a means through which recognition, academic credit and advanced placement may be given for less conventional forms of education. Those who may have reached a college level of education in certain areas through home or correspondence study, on-the-job training, television courses, and/or other means may take certain CLEP examinations which are offered by the College Entrance Examination Board.
To obtain information and make arrangements to challenge one of the exams listed, individuals may contact the Educational Testing Office at California State University, Fresno (559) 278-2457. Upon receiving the minimum score listed for each exam, students may petition for academic credit for specific CLEP subjects by submitting the official CLEP Test result to the Fresno City College Admissions and Records Office, Counter A.
A residency of 12 units of satisfactory work ("C" average) must be completed at Fresno City College prior to allowance of credit under this program.

*Meets California State Teacher Certification (Proficiency) requirements.
**Satisfies U.S. Constitution requirements for State Certification (Ed. Code Sec. 1312; not for Ed. Code 40404).

## Credit for Military Service

Upon successful completion of 12 units at Fresno City College with "C" grades or higher, any veteran/service
person/reservist may submit for possible Fresno City College credits appropriate documents and transcripts representing completion of basic military training, military in-service training or credit earned in a serviceperson's opportunity college. A person who has completed Army basic training can receive one (1) semester hour in personal physical conditioning, one (1) in outdoor skills practicum, one (1) in marksmanship and one (1) in first aid. A person who has completed Navy basic training can receive one (1) semester hour in personal fitness/conditioning, one (1) in personal/ community health and two (2) in first aid and safety. A person who has completed Air Force or Marine Corps basic training can receive one (1) semester hour in personal fitness/conditioning, one (1) in beginning swimming, one (1) in boating/seamanship and one (1) in personal health and first aid. These may be used to fulfill the PE requirement. To receive credit, the student must present a copy of his/her DD 214 or other appropriate documents citing pertinent data to the Admissions and Records Office.

## Honors and Awards*

## The Dean's List

A 3.0 grade point average for the previous semester with a minimum load of 12 units.

## High Honors

To be recognized at commencement, a 3.3/3.49 cumulative grade point average.

## Highest Honors

To be recognized at commencement, a $3.5 / 4.0 \mathrm{cu}-$ mulative grade point average.
The designation of honors in the commencement program is based on the grades earned during the semester preceding a student's graduation.

## Honor Societies

## Alpha Gamma Sigma

The Alpha Zeta Chapter of Alpha Gamma Sigma is a scholastic honor society of California community colleges. Membership is based on academic achievement, involvement in community service projects and leadership development activities. Members are eligible to participate for credit in a special volunteerism course. Affiliate membership and course participation are open to students who are otherwise ineligible for regular
membership. Both regular and affiliate members will be expected to maintain the highest standards of behavior and represent the organization and college in an exemplary manner. Academic qualifications: students entering from high school who are life members of CSF and those with at least a 3.5 GPA are eligible for temporary membership their first semester. Continuing students with a cumulative GPA of 3.0 in at least 12 units are eligible. Students must maintain a 3.0 GPA each semester (a one semester's grace period allowed if GPA is above 2.5). Permanent membership may be awarded to members who have completed 60 units and maintained a cumulative GPA of 3.25 for two semesters or 3.5 for one semester and have participated satisfactorily in chapter activities. Final authority on eligibility rests with faculty advisors. For additional information contact the College Activities Office.

## Phi Theta Kappa

Phi Theta Kappa is the international honor society for community colleges. Theta Beta, the Fresno City College chapter, helps students to advance the society's hallmarks of scholarship, leadership, fellowship, and service on campus and in the community. Phi Theta Kappa offers support from fellow scholars of all ages, ethnic backgrounds, economic levels, and fields of study who share a variety of interests and ideas. The sense of community among members and faculty advisors allows one to take full advantage of opportunities at the college and at state and international meetings. The commonality is superior scholarship and a commitment to continuing excellence and educational opportunities. To be eligible, a student must have completed at least 12 units of college course work with a cumulative GPA of 3.5 or better. Freshmen students are also eligible for provisional membership during their first semester at the college. For further information, visit the Honors Program office in LI-118 or phone 442-8207, or call Advisor Rosemarie Spight Guglielmino at 442-4600, extension 8117.
*In all cases, unit load refers to units carried at Fresno City College.

## Final Examinations

Class examinations on a semester's work are given at the close of each semester. Failure to attend the examination may result in a grade of " $F$ " for the examination. Arrangements for emergencies may be made
with approval of the individual instructor and the associate dean of the appropriate division.

## Grade Reports

Final semester grades usually are available and will be mailed to students approximately one week after the close of the semester.

## Certifications of Enrollment

Certifications of enrollment shall be requested in writing at the Admissions and Records Office. Aminimum of three working days for the preparation of certifications is required. Certifications will not be provided if the student has a "hold" on the permanent file.
The following definitions are used by Fresno City College when certifying the enrollment of our students to outside agencies such as the Veterans Administration, lending institutions, the Social Security Administration, insurance companies, and the California Student Aid Commission:
Full-time $\qquad$ 12 units or more
Three quarter-time ................... 9 to 11.5 units
Half-time 6 to 8.5 units
Limited $\qquad$ fewer than 6 units

## Transcript Requests

Requests for transcripts of courses taken at Fresno City College or within the State Center Community College District must, by provision of State and Federal law, be accompanied by the written signature of the student. Students are entitled to obtain two copies of their transcript free of charge; each additional copy is $\$ 2$. Payment must be received within five days from date of request. Transcript requests paid by personal check may incur a two (2) week processing delay to allow the check sufficient time to clear the bank. Should you wish to expedite the transcript processing, you may pay by money order, VISA, MasterCard or Discover Card. Cash is accepted at the Cashier's Window. Please do not mail cash with transcript request. Transcripts will not be provided if the student has a "hold" on the permanent file.
Normally, transcripts are available within five working days except during periods which involve holidays or at the end of each semester. At those times, students should allow 10 to 20 working days for processing. When requesting transcripts by mail, address the request to the

Admissions and Records Office. Transcripts from other institutions become a part of the student's permanent file and are not duplicated and forwarded with the Fresno City College transcript.

## Holds on Records and Registration

Whenever students fail to pay debts or return property owned by any college in the district, students' records will be held. Failure to return library books or other college property or equipment, failure to pay fees or student loans, and failure to reimburse the college for checks written on insufficient fund accounts will result in a "hold" being placed. Holds may also be placed by the Dean of Student Services as a result of disciplinary action.
Students whose records are held shall not be allowed to (1) register for subsequent terms; (2) receive transcripts; or (3) receive other services which relate to their records, including final grades or enrollment certification at any campus within the District. When the students have cleared their obligations, the "hold" will be removed.

## Educational Benefits for Veterans and Dependents

The following students may be eligible for veterans' educational benefits:

1. Veterans who were separated from active duty with the armed forces within the past 10 years.
2. Spouses or children (under 26 years of age) of veterans who were either killed while serving in the armed forces or were totally and permanently disabled while on active duty.
3. Widows or children of veterans who were residents of California at the time of entering the service and havea 50 percent disability may qualify for Cal Vet benefits.
4. Persons in one of the armed forces reserve programs who meet the minimum requirements of a special benefit program may be entitled to receive some educational and/or financial assistance.

Further information may be obtained from Veterans Services, Student Services building, lower level, Counter B, or from any Veterans Administration office.

## Progress and Attendance Policies

Veterans and eligible dependents are required to show satisfactory progress. Minimum standards, established by the college, require that all students comply with satisfactory progress policies (refer to page 18).
The Veterans Administration will be notified of any veteran who has been dismissed as not making satisfactory progress. The Veterans Services Office will only certify a veteran when the veteran has completed the necessary questionnaire for requesting reinstatement of VA benefits. It is recommended that veterans contact a college counselor for help with this questionnaire. For further information, contact Veterans Services, Student Services building, lower level, room 114.

To continue receiving veterans' benefits, the student must have on file at Fresno City College an official transcript from each college attended by the end of the first semester at Fresno City College. A veteran is not entitled to receive pay for a class for which a "W" or an "NC" grade has been assigned. The VA will require that the money be paid back for such classes.
A veteran must state a declared major for the VA upon completing two semesters in order to maintain eligibility for veterans' benefits.
Veterans who have completed 45 units at Fresno City College and/or elsewhere must obtain a degree evaluation from the Admissions and Records Office. Applications for degree evaluations are to be completed in the Admissions and Records Office.


A variety of printed resources are available to students wishing to attend Fresno City College. Information can also be found on the web site at www.fresn ocitycollege.com.

Veterans and eligible dependents have the responsibility to notify the veterans office whenever a change in program, address or dependents is made. All veterans/ dependents are urged to contact the veterans office regularly in order to be aware of the various changes in VA rules and regulations which may occur during the school year.

## Academic Limitations

Veterans/dependents attending Fresno City College who have earned a degree and/or have attempted sixty (60) or more units can only be certified for those courses which are either required to complete their degree objective at Fresno City College or meet a prerequisite for that requirement. Except in those cases where vocational work experience is required for the degree being pursued by the veteran, veterans with 60 or more units may not be certified for it. Veterans enrolled in vocational work experience must be engaged in work which is directly related to the veteran's major as declared with the VA . General work experience is not payable under any circumstances. Apprenticeship courses are payable under certain conditions. Also, veterans must enroll in and complete at least six units during the regular semester or two units during the summer session in order to be eligible for VA educational payments. Finally, a veteran may be certified to repeat a class for which a grade of " D " or better has been assigned only if the better grade is required as a prerequisite for the approved program.

## Veterans Services

Veterans Services, located in the Student Services building, room 114, provides assistance to veterans and their dependents. Open from 8 a.m. to 5 p.m. Monday through Friday, the staff will assist veterans and dependents in applying for educational benefits. Counseling and academic advising are available in the Counseling Center.

# GRADUATIONREQUREMENTS 

## General Education (for AA/ AS Degree)

General Education course work is intended to complement a concentrated study in a single discipline or "major." It should provide a broad base of educational experience about aspects of the world which a major area of study may not include. The student who completes the general education requirements at Fresno City College will have made noteworthy progress towards becoming truly educated and prepared for a lifetime of learning.
Following are the major areas of General Education:
Natural Sciences. Courses in the natural sciences are those which examine the physical universe, its life forms and its natural phenomena. To satisfy the general education requirement in natural sciences, a course should help the student develop an appreciation and understanding of the scientific method through direct experience and encourage an understanding of the relationships between science and other human activities. This category would include introductory or integrative courses in astronomy, biology, chemistry, general physical science, geology, meteorology, oceanography, physics and other scientific disciplines.
Social and Behavioral Sciences. Courses in the social and behavioral sciences are those which focus on people as members of society. To satisfy the general education requirement in social and behavioral sciences, a course should help the student develop an awareness of the method of inquiry used by the social and behavioral sciences. It should stimulate critical thinking about the ways people act and have acted in response to their societies and how their actions in turn change their society. It should also promote appreciation of how societies and social subgroups operate. This category
would include introductory or integrative survey courses in anthropology, economics, history, political science, psychology, sociology and related disciplines.
Humanities. Courses in the humanities examine the philosophical, literary, aesthetic, and cultural expressions of humans. These courses develop an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them through artistic and cultural creation. They develop aesthetic understanding and, through study of traditional and changing cultural perspectives, foster better informed value judgments. These courses also offer students the opportunity to explore their creativity and imagination and to move consciously towards an awareness of their capability for artistic self-expression. This category will include art history, literature and film, philosophy and morality, comparative religion, the fine and performing arts and language. When we ask who we are, and what our lives ought to mean, we are using the humanities.
Language and Rationality. Courses in language and rationality are those which develop for the student principles and applications of language that lead to logical thought, clear and precise expression, and critical evaluation of communication in any endeavor.

1. English Composition: Courses fulfilling this requirement include both expository and argumentative writing.

> Graduation ceremonies for degree candidates are held at the end of the spring semester each

year.
2. Communication and Analytical Thinking: Courses fulfilling these requirements include oral communication, mathematics, logic, statistics, computer language and programming, and related disciplines.

## Course Classification

Pursuant to revisions to the California Administrative Code, Title 5, Sections 55002 and 55805.5, all courses listed within the college catalog fall into one of the following classifications:

- Credit, Degree Applicable
- Credit, Nondegree Applicable

D Noncredit
The majority of courses have retained their previous classification and are credit, degree applicable. See Course Classification System, page 141, for a list of credit, nondegree applicable and noncredit courses.

## Graduation Requirements

## Application for Associate Degree or Certificate of Achievement

A candidate for an associate in arts degree, associate in science degree or a certificate of achievement must file a graduation application for the degree or certificate. An application for graduation for a degree or certificate of achievement will be accepted when a student is within a year of potential graduation and/or completion. A student who needs a formal evaluation prior to


Students who wish to be a candidate for graduation in two years must carry an average of 15 units per semester.
the year of graduation/completion may appeal this policy by providing evidence of special program requirements. Application deadlines are listed in the academic calendar of this catalog. No student is a candidate for graduation until the application is completed. Graduation ceremonies for degree candidates are held at the end of the spring semester each year. Diplomas will be dated at the end of the semester or summer session in which requirements are met. Diplomas and certificates are mailed to successful candidates approximately two months after fulfilling graduation requirements.

## Multiple Degrees

Astudent may gain more than one AAand/or AS degree from Fresno City College. Although a course used for a prescribed graduation requirement or to meet general education requirements may count toward more than one degree, no course may count toward the major course requirements for more than one degree major.

## Difference Between

## AS and AA Degrees

The major difference between the associate in science degree and the associate in arts degree is in the purpose underlying the programs. The AA assumes the completion of a mid-goal in a preparation for the bachelor's degree or a termination of an effort which is general education or liberal arts oriented.

The requirements of the AS degree approximate a program based upon specific, designated courses which tend to be sequential and lead to the attainment of welldefined performance goals or skill proficiencies.
It is the responsibility of the student to consult with a counselor regarding the proper sequence in which courses should be taken to satisfy graduation requirements.

## Requirements for AA and AS Degrees and Certificates

The Board of Trustees of this District shall award the associate in arts degree, the associate in science degree, the certificate of achievement and the certificate of completion to applicants upon the satisfactory completion of the requirements as listed in this catalog section.
It is the student's responsibility to be aware of degree and certificate requirements and of the student's standing in regard to those requirements. Students are urged to consult a counselor regarding any questions about degree or certificate requirements for the catalog year the student selects. All references to credit units
which appear in this section are to semester units. Quarter units from other colleges may be converted to semester units by decreasing the number of quarter units by onethird. Grade point average references assume the following relationship of letter grades to grade points for each unit of credit:

|  | 4 grade points |
| :---: | :---: |
| B | 3 grade points |
| C | 2 grade points |
| D* | ...... 1 grade point |
|  | 0 grade poin |

*D = passing, less than satisfactory. The " D " grade is passing but is not considered satisfactory for meeting the graduation requirements in Math, Reading, Writing, Speech and Computer Familiarity. In addition, the " D " grade is passing but is not considered satisfactory for meeting the requirements for prerequisite courses. The transfer student receiving a " D " grade may not meet specific course requirements at a four-year college or university. The student will receive a 1.0 grade point and the units for the course.

Exceptions to any of the regulations which follow will be judged by the "Rule of Equity" which requires that any waiver of standards be determined on the merit of the individual case.

The college reserves the right to determine what courses may be considered as equivalents for the stated degree, certificate, and general education requirements listed in this catalog. Please see the appropriate division/ associate dean or District Dean of Admissions and Records for pertinent information.

## Associate in Arts Degree

1. Sixty (60) units with at least 2.0 (C) grade point average in all courses applicable to the associate degree.

## A. Residence requirements

1. A minimum of twelve (12) units in residence at district colleges or centers, with attendance during the last semester prior to graduation, or
2. A total of forty-five units in residence at district colleges or centers if not in attendance during the last semester prior to graduation.
B. At least twenty (20) units in a discipline (major) or from related disciplines with a grade point average of 2.0 or better. (See specific major requirements.)
3. The demonstration of competence in writing either by means of a prescribed score on the English portion
of the specified proficiency tests or by completing English 1A, 1AH, 125, 153 or ESL 67 or Applied Technology 31 with a grade of " $C$ " (2.0) or better. Course work in English must be taken to satisfy the D. 1 English Composition General Education graduation requirement. For further information, see a counselor.
4. The demonstration of competence in reading either by means of meeting the reading requirement for English 1A eligibility by an appropriate standardized test score or by completing English 126 or ESL 68 with a grade of " $C$ " (2.0) or better. Completion of English 1A with also meet the reading requirement. For further information, see a counselor.
5. The demonstration of competence in oral communication skills by the successful completion of Speech $1,2,4,8$, or 25 with a grade of " $C$ " $(2.0)$ or better.
6. The demonstration of competence in mathematics by the successful completion of Mathematics 1, Decision Science 117, Applied Technology 130, Drafting 160 , or any advanced math course with a grade of " $C$ " (2.0) or better, or by the achievement of a prescribed score on the mathematics portion of a specified proficiency test. For further information, see a counselor.
7. Completion of one course that develops an understanding of the human being as an integrated physiological, social, and psychological organism: Health Science 1; Psychology 2, 2H, 33,163; or Child Development 38/Psychology 38.
8. Completion of two courses of Physical Education and/or Dance. Exceptions will be allowed for those students who are veterans, P.O.S.T. program candidates, Basic Fire Academy graduates, or who submit a physician's statement certifying that they are not physically able to participate in physical education classes. Physical Education courses that will not meet this requirement are Physical Education 20, $22,24,29 \mathrm{~A}, 30 \mathrm{~A}, 31 \mathrm{~A}, 32 \mathrm{~A}, 33 \mathrm{~A}, 34 \mathrm{~A}, 36 \mathrm{~A}, 37 \mathrm{~A}, 38 \mathrm{~A}$, $39 \mathrm{~A}, 40 \mathrm{~A}$, or 41 A .
9. Completion of one course on the principles of national, state, and local government which includes the study of American institutions and ideals: Political Science 2 or 10. The course used to fulfill this requirement may also be used to fulfill the Area B. 1 requirement.
10. The demonstration of familiarity with computer concepts and use of the computer by successfully completing one of the following: (a) a course in the student's major that has been designated by the division of that major as meeting the computer familiarity requirement with a grade of " C " or better; (b) Applied Technology 10; Business \& Technology $2,3,18,26,27,28$ or 107; Graphic Communications $5,12,13,14,15,16,17,20,22$, 23,30 , or 41; History 21 (for history majors only); Information Systems 12, 14, 15, 18, or 26; or (c) the Computer Familiarity Exam.
11. Aminimum of eighteen (18) units in general education with at least three (3) units in each of the following categories: (The specific courses for each of these areas are indicated.)
A. Natural Sciences ( 3 units)

Applied Technology 120
Astronomy 10
Biology 1/1H, 3, 7, 20, 24, 46, 151
Chemistry 1A, 3A, 3B
Geography 1, 7, 8
Geology 1, 2
Physics 2A, 2B, 4A
Physical Science 11
B. Social and Behavioral Sciences
( 6 units: B.1. $=3$ units; B.2. $=3$ units)

1. Government and Constitution

Political Science 2 or 10
2. Other Social and Behavioral Sciences

African-American Studies 1, 2, 4
American Indian Studies 31, 32, 33, 34
Anthropology 1, 2/2H, 3, 4, 14, 20, 28
Asian-American Studies 1, 15
Business Administration 20
Chicano-Latino Studies 11, 12, 13, 14, 24, 28, 29, 30

Child Development 5, 31, 39
Economics 1A/1AH, 1B
Geography 2, 4A, 4B
History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 11,12,15,17,18,20$, 21, 29, 30, 33, 34

Human Services 20
Political Science 1, 5, 20, 24
Psychology 5, 15, 25, 36, 39
Sociology 1A, 2, 10, 14, 31, 32, 45
Women's Studies 10, 24, 32, 41, 43
C. Humanities ( 3 units)

African-American Studies 3, 8, 13, 15, 17, 21, 22, 42, 49

American Indian Studies 35
American Sign Language 1, 2, 3, 4
Architecture 10, 11, 20, 30
Armenian 1, 2, 3
Art 2, 3, 4, 5/5H, 6/6H, 7, 8, 9, 10, 11, 12, $15,16,17,18,19,20,21,22,24,35,39 B$, 40B, 45
Chicano-Latino Studies 17, 18, 20, 21, 27
Chinese 1, 2
Dance 13, 17, 20A, 20B, 23, 27, 30, 42
English 1B/1BH, 12, 14, 15A,15B, 15C, 15D, 42, 44A, 44B, 45, 46A, 46B, 48A, 48B

Film 1, 2A, 2B, 4
French 1, 2, 3, 4
German 1, 2, 3, 4
Graphic Communications 39A, 40A
Hmong 1, 2
Humanities 10, 11
Japanese 1, 2
Journalism 1, 2, 10
Linguistics 10
Music 3, 5, 12, 13, 14, 16, 20, 21, 24, 25, 26, $27,28,29,30,32,34,35,36,39,40,41$, 42A, 42B, 42C, 42D, 46, 48

Philosophy 1A/1AH, 1B, 1C, 1D, 6
Photography 5, 10, 15, 20, 30, 40
Russian 1, 2, 3, 4
Spanish 1, 2, 3, 3NS, 4, 4NS, 5, 6, 7
Speech 12
Swahili 1, 2
Theatre Arts 12, 25, 26, 30, 31, 32, 33, 35, 36, 41, 42, 43, 44
D.Language and Rationality
( 6 units: D.1. $=3$ units; D.2. $=3$ units)

1. English Composition

Applied Technology 31
English 1A/1AH, 125, 153
English as a Second Language 67
2. Communication and Analytical Thinking

Applied Technology 10,130
Business Administration 10/10H, 18, 30, 33
Computer Science 10, 20, 40, 41
Criminology 13
Decision Science 21, 23, 117
Drafting 160
Electrical Systems Technology 51
English 3/3H, 40
Fashion Merchandising 10
Graphic Communications 5, 12, 13, 14, $15,16,17,18,20,21,22,23,30,41,54$

Information Systems 47
Management 10/10H
Marketing 10
Math 101, 102, 103, 4A, 4B, 11, 42 or any advanced math class

Philosophy 4
Political Science 13
Psychology 42
Speech 25
See a counselor for other courses which fulfill this requirement.

## Associate in Science Degree

Minimum requirements for the associate in science degree are the same as for the associate in arts degree with the exception of the major requirement which specifies completion of a specific pattern of courses in any occupational curriculum or completion of at least twenty (20) units in the physical sciences, the biological sciences and engineering.

## Certificate of Achievement

A certificate of achievement shall be awarded to students who successfully complete a specified occupational curriculum (minimum of 20 units) with a 2.0

GPA for required curricula courses. The specific courses required for the certificate of achievement are identified in each occupational degree program where such certificates are awarded.

## Certificate of Completion

A certificate of completion may be awarded with a minimum "C" average in each of the following areas:

1. Accounting
A. Computerized Accounting
B. Full-Charge Bookkeeper
2. Adaptive Ornamental Horticulture
3. Administration of Justice
A. Adult Correctional Officer Core
B. Basic Police Academy
C. Basic Reserve Academy
D. Basic Supervisors
E. Police Cadet Training
F. Community Service Officer
G. Juvenile Correctional Officer Core
H. Probation Core Course

I Public Safety Dispatchers' Course
J. Requalification - Basic Course
4. Air Conditioning
5. Alcoholism Counseling
6. Apprenticeship Training
A. Body and Fender
B. Cook
C. Diesel and Heavy-Duty Mechanic
D. Machine Shop
E. Partsclerk
F. Roofing
G. Welding
7. Automotive Technology
8. Building Safety and Code Administration
9. Business Administration, Entrepreneurial Ventures
10. Business and Technology
A. Business Office Assistant
B. Computer Applications Software

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Graduation Requirements
C. Medical Billing Assistant
D. Microsoft Word
11. Business Management
A. Business Finance and Investment
B. Human Relations and Communications
C. Human Resources and Relations
D. Management and Supervision
E. Small Business Management
12. Business Office Assistant
13. Career \& Technology Center Programs
A. Automotive Mechanics 371
B. Automotive Mechanics 372
C. Automotive Mechanics 373
D. Body-Fender 370
E. Building Maintenance 370
F. Clerical Training 374
G. Industrial Training 371
H. Maintenance Mechanic 370
I. Maintenance Mechanic 371
J. Maintenance Mechanic 372
14. Child Development
A. Child Development Associate Teacher
B. Family Child Care
C. Foster Care
15. Computer Applications Software
16. Correctional Science
17. Developmental Disabilities Specialist
18. Dietary Aide
19. Educational Aide (Special Education)
20. Electrical Systems Technology
A. Cisco Certification
B. Cisco CCNP Preparation
C. Industrial Control Systems
21. Fire Technology
A. Basic Fire Academy
B. Emergency Medical Technician 1
C. Emergency Medical Technician 1/Refresher
22. Graphic Communications, Web Design
23. Information Systems
A. Microsoft Access 2000
B. Microsoft Excel 2000
C. Microsoft Office 2000
D. System Support Specialist
E. Web Page Development
24.Paralegal, Legal Assistant-Clerk
25. School to Work
26. Teacher Aide (General)
27. Workability Vocational Education

See the Associate Degree and Certificate Programs and/or Divisions sections of this catalog for the specific course requirements for these certificates. Students interested in obtaining a certificate of completion should contact the appropriate division dean or obtain a form at the Admissions and Records Office.

## Liberal Arts Major

Associate in Arts Degree
The purpose of this program is to allow students some flexibility in choice of courses, but with a general education emphasis.

## Requirements

1. Completion of the graduation requirements for the AA degree as currently listed on page 27.
2. Completion of a minimum of 20 units taken from:
A. those courses listed as meeting the general education requirements for the AA and AS degree (A, B.1, B.2, C, D.1, D.2, page 29),
B. those courses listed for meeting the general education requirements for California State University Transfer Certification (page 36).
Note: No units completed can be used toward satisfaction of both requirements 1 and 2 above. All courses must be taken from the classification "Credit, Degree Applicable" as outlined in the Fresno City College catalog.
3. Sufficient additional transfer course units to satisfy the minimum total graduation requirement of 60 units.

## General Studies Major <br> Associate in Arts Degree

The purpose of this program is to allow students maximum flexibility in choice of courses without regard to a general education emphasis. All courses must be taken from the classification "Credit, Degree Applicable" as outlined in this catalog.

## Requirements

1. Completion of the graduation requirements for the AA degree as currently listed on page 28.
2. Completion of a minimum of 20 units taken from:
A. those courses listed as meeting the General Education requirements for the AA and AS degree (A, B.1, B.2, C, D.1, D.2, page 29),
B. any (degree applicable) courses approved for a certificate of achievement, certificate of completion, or associate's degree.
C. those courses listed for meeting the general education requirements for California State University Transfer Certification (page 36).
D. P.E. activity classes shall be limited to eight units for the major.
Note: No units completed can be used toward satisfaction of both requirements 1 and 2 as stated above.
3. Sufficient additional units to satisfy the minimum total graduation requirement of 60 units.

# TRANSFER REQUIREMENTS 

## Preparation to Enter Four-Year Colleges or Universities

Fresno City College provides the first two years of a four-year college or university program. The majority of Fresno City College regular day students are enrolled in

The majority of Fresno City College regular day students will complete all or most of their general education and lower division major requirements
before
transferring.
such transfer programs and will complete all or most of their general education and lower division major requirements before transferring.
Students can transfer to a baccalaureate institution once they have completed 56 (for CSU) or 60 (for UC) or more transferable units with the required GPA.
The requirements for transfer and the requirements for a terminal program are very different. Therefore, the importance of reaching a decision regarding the individual's objectives at the time of enrollment cannot be overemphasized. Also, there are differences in the requirements of colleges and universities. This fact makes it advisable for entering students to plan a program which meets the requirements of a particular college or university to which they wish to transfer. Students should consult the catalog of the particular college or university which they later
plan to attend. Counselors will assist in interpreting catalog statements and requirements and with developing a Student Educational Plan (SEP) upon request. Catalogs of many universities and colleges are available in the counseling/career center and the Fresno City College library. It is, however, wise for students to order their own personal copies directly from the college or university of their choice.
Careful selection of courses at Fresno City College will prepare a student for transfer with junior standing to a baccalaureate institution and at the same time enable the student to complete the requirements for the associate degree. Those Fresno City College courses which are accepted at other schools are not always exact equivalents of their courses but normally are accepted as meeting the same requirements.
In accordance with Executive Order No. 167 from the Chancellor's Office of the California State Universities, Fresno City College has developed a list of courses which are of baccalaureate level. These courses are listed on page 36 of this catalog. The courses so designated by Fresno City College shall be accepted by any campus of the State University for credit toward its baccalaureate degrees. Students can complete the general education requirements for all of the California State Universities by following the appropriate pattern which follows. Completion of the general education requirements will be certified on the Fresno City College final transcript.
Fresno City College courses that transfer to the University of California campuses are listed on page 38. Students who plan to transfer to one of the UC campuses should consult the latest catalog of the university of their choice to determine lower division requirements.

University of California breadth requirements for each separate campus and some major program sheets are
available in the Transfer Center of the Counseling Center for student use.

## General Education Requirements for California State University Transfer Certification

Note: A number of courses are cross-referenced - the same course is listed in more than one area, department, or discipline - usually with the same course number. Credit can be earned only once for cross-referenced courses. See the individual course listings in the "Course Descriptions" section of the catalog.

Students who have credit from other colleges should confer with a counselor regarding General Education Certification.

## Area A: Communication in the English Language and Critical Thinking

Select a minimum of nine units, with one course from each of the following three areas:

- Area A1, Oral Communication

Speech 1, 2, 4, 8
D Area A2, Written Communication
English 1A/1AH

- Area A3, Critical Thinking

Criminology 13
English 3
Philosophy 6
Political Science 13
Speech 25

## Area B: Physical Universe and Its Life Forms

Select a minimum of nine units, with one course from each of the following three areas (at least one must have a lab):

- Area B1, Physical Science

Astronomy 10
Chemistry 1A, 3A, 3B, 28A, 28B
Geography 1, 7, 8
Geology 1, 2
Physical Science 11
Physics 2A, 2B, 4A
D Area B2, Life Science

Biology 1/1H, 3, 4, 6, 7, 20, 24, 31
D Area B3, Laboratory Activity
Chemistry 29A, 29B

- Area B4, Mathematics/Quantitative Reasoning

Computer Science 20
Decision Science 21, 23
Mathematics 4A, 4B, 5A, 5B, 6, 10A,
10B, 11, 21, 26, 42, 45
Mathematics/Psychology 42

## Area C: Arts, Literature, Philosophy <br> and Foreign Languages

Select a minimum of nine semester units, with at least one course from each of the following two areas:

- Area C1, Arts

African-American Studies 3, 8, 13, 15, 42, 49
American Indian Studies 35
Architecture ( 10 and 20) or (11 and 30 or 20)
Art 2, 3, 4, 5/5H, 6/6H, 7, 9, 10, 11, 12, 14, 15, 17, 22, 35, 45
Chicano-Latino Studies $+17,20,+27$
Dance +17, 20A $+27,30,42$
Film 1, 2A, 2B
Music $3,12,13,14,16,20,21,24,25,27,28,30$, 32, 39, 40, 46


Each year Fresno City College hosts "Showcase" a college open house focusing on high school juniors and seniors.

Fresno City College
Transfer Requirements

Photography 5, 10, 15, 20
Speech 12 or Theatre Arts 12
Theatre Arts 30, 41, 43, 44
+Only one course can be used to satisfy this area.

- Area C2, Humanities

African-American Studies 21, 22
American Sign Language 1, 2, 3, 4
Armenian 1, 2
Chicano-Latino Studies 21
Chinese 1, 2
English 1B/1BH, 12, 15A, 15B, 15C, 15D, 40, 42, 44A, 44B, 45, 46A, 46B, 48A, 48B
French 1, 2, 3, 4
German 1, 2, 3, 4
Hmong 1, 2
Humanities 10, 11
Japanese 1, 2
Linguistics 10
Philosophy 1A/1AH, 1B, 1C, 1D
Russian 1, 2, 3, 4
Spanish 1, 2, 3, 3NS, 4, 4NS, 5, 6
Swahili 1, 2
Theatre Arts 31, 32, 47

## Area D: Social, Political, and

Economic Institutions and Behavior;
Historical Background
Select a minimum of nine units, with courses taken in at least three disciplines:

- Area D1, Anthropology and Archaeology Anthropology 2/2H, 3
- Area D2, Economics

Economics 1A, 1B

- Area D3, Ethnic Studies

African-American Studies 1, 4
American Indian Studies 31, 34
Asian-American Studies 15
Chicano-Latino Studies 11, 12

- Area D4, Gender Studies

Women's Studies 10

- Area D5, Geography

Geography 2, 4A, 4B

- Area D6, History

History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 11,12,15$

- Area D7, Interdisciplinary Social or

Behavioral Science
American Studies 10
D Area D8, Political Science, Government \&
Legal Institutions
Business Administration 20
Political Science 1, 2, 5, 20

- Area D9, Psychology

Psychology/Child Development 39

- Area D10, Sociology and Criminology

Sociology 1A, 32
Area E: Lifelong Understanding and
Self-Development Self-Development

Select a minimum of 3 units:
Child Development/Psychology 38
Health Science 1
Psychology 2/2H, 33
Note: History 11 or 12 and Political Science 2 must be taken to meet the California State University's U.S. History and Government requirement for graduation.
Total Units Required for Certification $\qquad$
Note: To earn a bachelor of arts or bachelor of science degree at a four-year school, a student must complete specified courses in a major field as well as general education courses. As a rule, courses used to meet major requirements cannot be used as part of the 39 units in general education, except for the Liberal Studies Major.
For further information concerning the Liberal studies Major and Engineering Majors, contact your counselor. It is recommended that students planning to earn a Multiple Subject elementary school teaching credential follow the Liberal Studies blended program.

## California State University Transfer Course List

The following courses are baccalaureate-level courses transferable to all California State University campuses. Their acceptance in meeting general education or major requirements will vary among the campuses. Consult the appropriate catalog, major sheet or with a counselor for specific information.
Note: A number of courses are cross-referenced- the same course is listed in more than one area, department or discipline- usually with the same course number. Credit can be earned only once for cross-referenced courses. See the individual course listings in the "Course Descriptions" section of the catalog.

Accounting 4A, 4B, 19, 31, 34, 55, 56, 70, 73
Aerospace Studies 1A, 1B, 2A, 2B, 3
African-American Studies 1, 2, 3, 4, 5, 6, 8, 13, $15,17,21,22,36,41,42,49$
Air Conditioning 19, 50, 51, 52, 53, 54, 56, 60A
American Indian Studies 31, 32, 33, 34, 35
American Sign Language 1, 2, 3, 4
American Studies 10
Anthropology 1, 2/2H, 3, 4, 5, 14, 19, 20, 27, 28
Applied Technology 10, 11, 21, 31, 40
Apprenticeship 19
Architecture 10, 11, 12, 20, 21, 22, 24, 30, 31, 32, 34, 40, 41A, 42, 44
Armenian 1, 2, 3
Art 2, 3, 4, 5/5H, 6/6H, 7, 8, 9, 10, 11, 12, 13, 14, $15,16,17,18,19,20,21,22,23,24,24 \mathrm{~A}, 24 \mathrm{~B}$, 24C, 24D, 25, 27, 29, 32, 34, 35, 39B, 40B, 45, 49, 55, 65
Asian-American Studies 1, 10, 15, 20, 25
Astronomy 10
Automotive Collision Repair Technology 51, 51A, 51B, 53, 53A, 53B, 55
Automotive Technology 9, 19, 51, 51L, 52, 53, 54, 55, 56, 57, 58
Automotive Technology -
General Motors ASEP 51, 51L, 52, 53, 54, 55, 56, 57
Biology 1/1H, 3, 4, 6, 7, 8A, 8B, 8C, 20, 22, 24, 31, 46, 47
Building Safety and Code Administration 10, 12, $14,15,16,17,20,22,24$
Business Administration 5, 7, 8, 10, 10H, 13, 14, $16,18,19,20,21,22,25,27,28,30,31,32,33$ $34,35,38,40,43,44,50,51,52$
Business \& Technology 1, 2, 3, 4, 5, 9, 10, 11, 13, $14,17,18,19,20,21,24,25,26,27,28,29,30$
Cabinetmaking Technology 19, 51, 51A, 51B, 53, 53A, 53B
Chemistry 1A, 1B, 3A, 3B, 8A, 28A, 28B, 29A, 29B
Chicano-Latino Studies 11, 12, 13, 14, 17, 18, 20, 21, 22, 24, 27, 28, 29, 30, 33
Child Development 2, 3, 4, 5, 6, 7, 7A, 8, 8A, 9, 10, $11,12,13,14,15,18,19,30,31,34,37 \mathrm{~A}, 37 \mathrm{~B}$, $38,39,40 \mathrm{~A}, 40 \mathrm{~B}, 42,43,44,45,46,47 \mathrm{~A}, 47 \mathrm{~B}$, 47C, 48
Chinese 1, 2
Computer Aided Drafting and Design 14, 24, 34, 40

Computer Aided Manufacturing 10, 20, 30, 40, 50

Computer Science 10, 20, 40, 41
Construction 19, 50A, 50B, 51, 51A, 51B, 53, 53A, 53B, 55, 56, 57
Criminology $1,3,4,5,6,7,8,11,12,13,15,16$, $18,19,20,21,23,24,25,36$
Cultural Studies 7/7H, 10, 11, 40
Dance 10, 11, 12, 13, 14, 15, 16, 17, 18, 20A, 20B, 21, 22, 23, 24, 25, 26, 27, 30, 42
Decision Science 21, 23,
Dental Hygiene 1A, 1B, 1C, 1D, 2, 3A, 3B, 4, 5A, 5B, 5C, 6A, 6B, 7A, 7B, 8A, 8B, 9, 10, 11
Drafting 12, 19
eCommerce 1, 2
Economics 1A/1AH, 1B
Education 30
Educational Aide 1, 6, 7, 19
Educational Aide/Paraeducator 19
Electrical Systems Technology 19, 50, 51, 52, 53, 54, 55A, 55B, 56, 57, 58, 59, 60, 61, 62, 63, 64, $65,66,67,68,96$
Engineering 1A, 1B, 2, 4, 6, 8, 10, 11
English $1 \mathrm{~A} / 1 \mathrm{AH}, 1 \mathrm{~B} / 1 \mathrm{BH}, 3 / 3 \mathrm{H}, 4,6,12,14,15 \mathrm{~A}$, 15B, 15C, 15D, 40, 42, 44A, 44B, 45, 46A, 46B, 48A, 48B

English as a Second Language 67, 68
Environmental Technology 51, 52, 53, 54, 55, 56
Fashion Merchandising 10, 14, 19, 20, 21, 22, 25, 27, 28, 29, 37
Film 1, 2A, 2B, 4
Fire Technology 1, 2, 3, 4, 5, 6, 8, 9, 13
Food and Nutrition 1, 35, 40, 41, 42, 43, 45
Food Service Management $11,15,19,25,35,38$, 63
French 1, 2, 3, 4
Geography 1, 2, 4A, 4B, 7, 8, 10
Geology 1, 2
German 1, 2, 3, 4
Graphic Communications 5, 10, 12, 13, 14, 15, 16, $17,18,19,20,21,22,23,24,25,26,30,39 \mathrm{~A}$, 40A, 41, 54, 59, 62
Guidance Studies 11, 38, 40, 41, 43, 44, 45, 46, 47A, 47B, 48, 49
Health Information Technology 1, 2, 3, 4, 5, 6, 7, $8,9,10,11,12,19$
Health Science 1, 2
History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 3,11,12,15,17,18,21,29$, 30, 34
Hmong 1, 2
Home Economics 1, 7, 19, 20, 24, 26

## Honors 1

Human Services 2, 5, 7, 10, 18, 19A, 19B, 20, 24, $25,30,35,38,40,42,43,44$
Humanities 7/7H, 10, 11
Individual Study 49
Information Systems 12, 14, 15, 17, 18, 19, 20, 22, $23,24,25,26,27,30 \mathrm{~A}, 30 \mathrm{~B}, 30 \mathrm{C}, 30 \mathrm{D}, 30 \mathrm{E}, 30 \mathrm{~F}$, 30G, 32, 33, 34, 36, 37, 40, 41, 46, 47, 49, 74
Japanese 1, 2
Journalism 1, 2, 3, 5, 6, 10, 19
Library Skills 1
Library Technology 51, 52, 54, 55, 56, 57
Linguistics 4, 10
Management 10/10H, 11, 31, 33, 40,43
Marketing 10, 11, 12, 14, 17, 19, 20
Mathematics 4A, 4B, 5A, 5B, 6, 7, 10A, 10B, 11, 21, $26,42,45,48 \mathrm{~A}, 48 \mathrm{~B}, 48 \mathrm{C}$
Medical Assisting 1, 2, 4, 5, 6A, 6B, 19
Military Science 1, 2, 11, 12, 50A, 50B
Music 1A, 1B, 2A, 2B, 3, 4, 5, 6, 7A, 7B, $8,9,10,12$, $13,14,16,18,20,21,22,23,24,25,26,27,28$, $29,30,32,34,35,36,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}$, 42D, 46, 47, 48
Nursing $1,2,3,4,5,6,7,8,9,10,11,12,13,14$, 15,19, 21, 50
Paralegal 1, 2A, 2B, 3, 4, 5, 6A, 6B, 7, 8, 9, 10, 11, $12,13,14,15,16,17$
Philosophy 1A/1AH, 1B, 1C, 1D, 6
Photography 5, 10, 15, 19, 20, 22, 23, 25, 30, 35, 40, 45
Physical Education 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, $13,14,15 \mathrm{~A}, 15 \mathrm{~B}, 15 \mathrm{C}, 17,20,21,22,23,24,25$, 29A, 29B, 29C, 30A, 30B, 30C, 31A, 31B, 31C, 32A, 32B, 32C, 33A, 33B, 33C, 34A, 34B, 34C, 35B, 36A, 36B, 36C, 37A, 37B, 37C, 38A, 38B, 38C, 39A, 39B, 39C, 40A, 40B, 40C, 41A, 41B, 41C, 50, 51, 52, 53, 54, 55
Physical Science 7, 11
Physics 2A, 2B, 4A, 4B, 4C
Political Science 1, 2, 5, 10, 13, 20, 24
Psychology 2, 2H, 5, 12, 13, 14, 15, 16, 19, 25, 33, 36, 38, 39, 42
Purchasing 10, 11
Radiologic Technology 1A, 1B, 1C, 2A, 2B, 2C, 2D, 3A, 3B, 4A, 4B, 4C, 5A, 5B, 5C, 6
Real Estate 40, 41, 42, 43, 54, 55, 56, 57, 58, 60, 61, 62, 63
Recreation 19, 20, 21, 23, 50
Respiratory Care $16,17,18,20,21,22,23,25$

Russian 1, 2, 3, 4
Sociology 1A, 1B, 2, 5, 7, 10, 14, 31, 32, 40, 45
Spanish 1, 2, 3, 3NS, 4, 4NS, 5, 6, 7, 8, 10, 11
Special Studies 47
Speech 1, 1HS, 2, 4, 8, 12, 20, 25, 26, 28
Swahili 1, 2
Theatre Arts $12,24,25,26,27,28,31,32,33,34$,
$35,36,37,40,41,42,43,44$
Welding $1,2 \mathrm{~A}, 2 \mathrm{~B}, 3 \mathrm{~A}, 3 \mathrm{~B}, 4 \mathrm{~A}, 4 \mathrm{~B}, 19,56$
Women's Studies $5,7,10,24,25,32,41,42,43$, 44, 45, 46
Work Experience 19
Note: No more than 8 units of work experience, including both vocational and general, are considered appropriate for transfer.

## University of California Transfer Course List

Courses from Fresno City College that are acceptable at the University of California, Berkeley, Davis, Irvine, Los Angeles, Riverside, San Diego, San Francisco, Santa Cruz, and Santa Barbara follow.
Note: A number of courses are cross-referenced- the same course is listed in more than one area, department or discipline- usually with the same course number. Credit can be earned only once for cross-referenced courses. See the individual course listings in the "Course Descriptions" section of the catalog.
Accounting 4A, 4B
Aerospace Studies 3
African-American Studies $1,2,3,4,5,6,8,13$, $15,17,21,22,36,41,42,49$
American Indian Studies 31, 32, 34, 35
American Sign Language 1,2
American Studies 10
Anthropology $1, * 2, * 2 H, 3,+4,+5,14,20,28$
*2 and 2 H combined: maximum credit, 1 course.

+ maximum credit, 1 unit.
Architecture 10, 11, 20, 30
Armenian 1, 2, 3
Art 2, 3, 4, *5, *5H, +6, +6H, 7, 8, 9, 10, 11, 13, $14,15,16,17,18,19,20,21,23,24,24 \mathrm{~A}, 24 \mathrm{~B}$, 24C, 24D, 25, 27, 29, 34, 35
*5 and 5 H combined: maximum credit, 1 course.
+6 and 6 H combined: maximum credit, 1 course.
Asian-American Studies 1, 15, 20, 25
Astronomy 10
Biology +1, +1H, *3, 4, 6, 7, 20, 22, 31, 47
+1 and 1 H combined: maximum credit, 1 course.
*No credit for 3 if taken after 1 .

Business Administration 10, *18, +20, *21
*18 and 21 combined: maximum credit, 1 course +20 and Political Science 20 combined: maximum credit, 1 course.
Chemistry *1A, 1B, *3A, ${ }^{\circ} 8 \mathrm{~A},{ }^{\circ} 28 \mathrm{~A}, 28 \mathrm{~B}, 29 \mathrm{~A}, 29 \mathrm{~B}$
$* 1 A$ and $3 A$ combined: maximum credit, 1 course.
${ }^{\circ} 8 \mathrm{~A}$ and 28 A combined: maximum credit, 1 course.
Chicano-Latino Studies 11, 12, 13, 14, 17, 18, 20,
21, 22, 24, 27, 28, 29, 30
Child Development 38, 39
Chinese 1, 2
Computer Science 10, 20, 40, 41
Criminology 1, 5, 13
Cultural Studies 10
Dance 10, 11, 12, 13, 14, 15, 16, 17, 18, 20A, 20B,
21, 22, 23, 24, 25, 27, 30, 42
Decision Science 21, +23
+23 combined with Math 11/42 and Psychology 42:
maximum credit, 1 course.
Economics 1A, 1B
Engineering 1A, 1B, 2, 4, 8, 10
English *1A, *1AH, +1B, +1BH, 3, 4, 12, 14, 15A,
15B, 15C, 15D, 40, 42, 44A, 44B, 45, 46A, 46B,
48A, 48B
*1A and 1 AH combined: maximum credit, 1 course.
+1 B and 1 BH combined: maximum credit, 1 course.
Fashion Merchandising 20
Film *1, 2A, 2B, *4
*4 may duplicate $1,2 \mathrm{~A}$ or 2 B
Food and Nutrition 40
French 1, 2, 3, 4
Geography *1, 2, 4A, 4B, *7, 8, 10
*1 and 7 combined: maximum credit, 1 course.
Geology 1, 2
German 1, 2, 3, 4
Health Science 1, 2
History *1, *1H, +2, +2H, 3, 11, 12, 15, 17, 18, 21, 29, 30, 34
*1 and 1 H combined: maximum credit, 1 course.
+2 and 2 H combined: maximum credit, 1 course.
Hmong 1, 2
Home Economics 20
Honors Studies 1
Human Services 2, 10
Humanities 10, 11
Individual Study 49
Note: The granting of transfer credit for courses of this kind is contingent upon an evaluation of the course outline by a UC campus.
Information Systems *12, *15, 33, 34, 36, 37, 47
*12 and 15 combined: maximum credit, 1 course.

Japanese 1, 2
Journalism 1
Linguistics 4, 10
Management 10
Mathematics 4B, 5A, 5B, 6, 7, *10A, *10B, ${ }^{\circ} 11,21$, 26, ${ }^{\circ} 42$
*10A and 10B combined: maximum credit, 1 course. ${ }^{\circ} 11$ and 42 combined with Decision Science 23 and Psychology 42: maximum credit, 1 course.
Military Science 1, 2, 11, 12, 50A, 50B
Music 1A, 1B, 2A, 2B, ${ }^{\circ} 3,4,7 \mathrm{~A}, 7 \mathrm{~B}, 9,12,13,14$, $16,18,20,21,22,23,24,25,26,27,28,29,30$, $32,34,35,36,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}, 46$, 48, 49
${ }^{\circ}$ No credit for 3 if taken after 1 A .
Philosophy *1A, *1AH, 1B, 1C, 1D, 4, 6
*1A and 1 AH combined: maximum credit, 1 course. Photography 5, 10, 15
Physical Education *3-17, 20, *21, 22, 23, +24, $25,+30$ A-41A, *30B-34B, *36B-41B, *30C-41C, *50-55
*Any or all of these courses combined: maximum credit, 4 units (except 24).
+Any or all of these courses combined: maximum credit, 8 units.
Physical Science 7, *11
*No credit if taken after a college course in Physics or Astronomy.
Physics *2A, *2B, *4A, *4B, *4C
*2A and 2 B combined with 4A, 4B, 4C: maximum credit, 1 series.
Political Science 1, 2, 5, 13, *20, 24
*20 combined with Business Administration 20: maximum credit: 1 course
Psychology *2, *2H, 5, 15, 16, 25, 33, 36, 38, 39, ${ }^{\circ} 42$
*2 and 2 H combined: maximum credit, 1 course.
${ }^{\circ} 42$ combined with Math 11/42 and Decision Science
23: maximum credit, one course
Russian 1, 2, 3, 4
Sociology 1A, 1B, 2, 10, 14
Spanish *1, +2, 3, *3NS, +4NS, 4, 5, 6, 7, 8
*1 and 3NS combined: maximum credit, 1 course
+2 and 4NS combined: maximum credit, 1 course
Special Studies 47
Speech 1, *4, 8, 12,*25
*4 and 25 combined: maximum credit, 1 course.
Swahili 1, 2
Theatre Arts $12,25,26,27,28,30,31,32,33,35$, 36, 41, 43, 44
Women’s Studies 10, 24, 41

## University of California Admission Requirements for Transfer Students

Students ineligible for admission to the University of California at the time of high school graduation because of low grades or a combination of low grades and a lack of required subjects must meet three criteria: (1) establishment of an overall GPA of 2.4, (2) completion of 60 transfer semester units and (3) presentation of appropriate college courses completed with a " C " grade or better in the " $\mathrm{A}-\mathrm{F}$ " subjects not completed in high schools. Up to two units of credit may be waived if (1) and (2) are satisfied.
An alternative to the criteria in (3) above may be used. A student may present one college course in mathematics, one in English, and one in either U.S. History, a laboratory science, or a foreign language. These courses must be passed with a grade of " $C$ " or better. Courses other than mathematics must be transferable to the university. To meet the mathematics eligibility requirements, the student should have completed three years of high school mathematics through intermediate algebra or complete a college course with a prerequisite of intermediate algebra.

## Intersegmental General Education Transfer Curriculum (IGETC)

Completion of all of the requirements in the Inter segmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the California State University or University of California system. The student will not be required to complete additional lower division general education courses after transfer.
It should be noted that completion of the IGETC is not a requirement for admission to the CSU or UC, nor is it the only way to fulfill the lower-division general education requirements prior to transfer. Depending on a student's major, it may be advantageous to fulfill the CSU's or UC's general education requirements or those of the particular campus, school or college to which the student plans to transfer. This applies generally to high-unit majors.

The course requirements for all areas must be completed before the IGETC can be certified. All courses must be completed with grades of " C " or better.

Area 1 - English Composition
CSU - Three courses required, one from each group.
UC- Two courses required, one each from Group $A$ and $B$.
A. English Composition, one course, three semester units English 1A/**1AH Reading and Composition. .4

B. Critical Thinking - English Composition
English 3, Critical Reading and Writing
3
C. Oral Communication
(CSU only: One course, three semester units)
Speech 1, Intro to Public Speaking ................... 3
Speech 4, Persuasion ........................................ 3
Speech 8, Group Communication ...................... 3
Speech 25, Argumentation ................................ 3
Area 2 - Mathematical Concepts and Quantitative Reasoning
One course, three semester units.
Decision Science 21, Finite Mathematics ........... 3
** Math 4B, Pre-Calculus ...................................... 3
** Math 5A, Mathematical Analysis ........................ 4
Math 5B, Mathematical Analysis II................... 4
Math 6, Mathematical Analysis III .................... 4
** Math 11, Elementary Statistics ........................ 4
Math 21, Finite Mathematics ............................. 3
Math 26, Elementary Linear Algebra.................. 3
Math/Psychology 42, Statistics for the
Behavioral Sciences..................................... 3
Area 3 - Arts and Humanities
At least three courses, with at least one from the Arts and one from the Humanities, nine semester units.
A. Arts

African-American St 3, African-American
Art.................................................................. 3
African-American St 13, African-American
Music from "Pre-Slavery" to 1940 $\qquad$ 3

African-American St 15, African-American
Music from 1940 to Present 3

American Indian St 35, American Indian
Art. .3
Art 2, Art Appreciation ...................................... 3
Art5/**5H, Art History 1 ..... 3
Art 6/**6H, Art History 2 ..... 3
Dance 30, Dance Appreciation .....  3
Chicano-Latino St 20, Chicano Art. ..... 3
Music 3, Music Fundamentals ..... 3
Music 12, Music Appreciation .....  3
Music 13, History of Music ..... 3
Music 14, Music and Opera .....  3
Music 16, Jazz History and Appreciation ..... 3
Theatre Arts 30, Theatre Appreciation ..... 3
Theatre Arts 31, Theatre History and DramaticLit I3-3
Theatre Arts 32, Theatre History and Dramatic Lit II

$\qquad$ .....  3
B. Humanities
African-American St 17, African-AmericanLiterature 3
Armenian 3, Intermediate Armenian .....  3
Chicano-Latino St 21, Chicano Literature .....  3
English 1B/**1BH, Intro to Literature ..... 3
English 12, Bible as Literature ..... 3
English 42, Classic Myths .....  3
English 44A, World Literature .....  3
English 44B, World Literature ..... 3
English 45, Contemporary World Literature .....  3
English 46A, English Literature to 1800 .. .....  3
English 46B, English Literature from 1800 toPresent3
English 48A, Intro to American Literature toWorld War I3
English 48B, Intro to American Literature fromWorld War I to the Present
$\qquad$3
Film 1, Introduction to Film. ..... 3
Film 2A, History of Film to 1965 ..... 3
Film 2B, History of Film after 1965 ..... 3
French 3, 4, Intermediate French ..... 4-4
German 3, 4, Intermediate German ..... 4-4
History 1/**1H, Western Civilization .....  3
History $2 / * * 2 \mathrm{H}$, Western Civilization ..... 3
Humanities 10, Classical Humanities ..... 3
Humanities 11, Modern Humanities ..... 3
Linguistics 10, Intro to Language ..... 3
Philosophy $1 \mathrm{~A} / * * 1 \mathrm{AH}$, Theories of Knowledge and Reality. .....  3
Philosophy 1B, Social and Political Philosophy .....  3
Philosophy 1C, Ethics .....  3
Philosophy 1D, World Religions .....  3
Russian 3, 4, Intermediate Russian ..... 4-4
Spanish 3, 4, Intermediate Spanish ..... 4-4
Spanish 5, 6, The Short Story ..... 3-3
Theatre Arts 47, Shakespeare .....  3
Area 4 - Social and Behavioral Sciences
At least three courses from at least two disciplines,nine semester units.A. Anthropology $2 / * * 2 \mathrm{H}$,Cultural Anthropology 3
Anthropology 3, Intro to Archaeology and Pre-History .....  3
B. Economics 1A, Prin of Macroeconomics. .....  3
Economics 1B, Prin of Microeconomics .....  3
C. African-American St 1, African-American Culture .....  3
African-American St 4, African Civilization .... 3American Indian St 31, American IndianCulture 3
American Indian St 34, American Indian in Contemporary Society .....  3
Chicano-Latino St 11, Intro to Chicano-Latino Studies .....  3
Chicano-Latino St 12, Chicano History and
Heritage .....  3
D. Women's St 10, Changing Roles of Women .....  3
E. Geography 2, Cultural Geography .....  3
Geography 4A, 4B, World Geography ..... 3-3
F. History 15 , History of the British Isles .....  3
G. American St 10, American Pluralism:A Search for Common Ground in aMulticultural Society 3
H. Political Science 5, Comparative Government.. 3
I. Psychology $2 /{ }^{* *} 2 \mathrm{H}$, General Psychology .....  3

42 Fresno City College
Transfer Requirements

$$
\begin{aligned}
& \text { Psychology } 38 \text { or Child Development 38, } \\
& \text { Lifespan Development.................................. } 3 \\
& \text { Psychology } 39 \text { or Child Development 39, Child } \\
& \text { Development.................................................................. }
\end{aligned}
$$

J. Sociology 1A, Intro to Sociology .....  3
Area 5 - Physical and Biological SciencesAt least two courses, one biological science andone physical science. One four-unit course musthave a lab. (All have labs except those indicated.)
A. Physical Sciences
Astronomy 10, Basic Astronomy ( no lab) ..... 3
** Chemistry 1A, General Chemistry .....  5
** Chemistry 1B, General Chemistry ..... 5
** Chemistry 3A, Intro to General Chemistry .** Chemistry 8A, Elementary Organic.
$\qquad$Chemistry (no lab)
$\qquad$** Chemistry 28A/29A, Organic Chemistryand Lab 5
**Chemistry 28B/29B, Organic Chemistry andLab 5
** Geography 1, Physical Geography .....  4
** Geography 7, Physical Geography - Earth Surface .....  4
** Geography 8, Physical Geography - Weather/Climate. .....  4
Geology 1, Physical Geology .....  4
Geology 2, Historical Geology (no lab) .....  3
** Physical Science 11, Intro Physical Science( no lab) 3
** Physics 2A, General Physics .....  4
** Physics 2B, General Physics ..... 4
** Physics 4A, Physics for Scientists and Engineers .....  4
** Physics 4B, Physics for Scientists and Engineers.

$\qquad$ ..... 4
** Physics 4C, Physics for Scientists and Engineers .....  4
B. Biological Sciences
Biology $1 / * * 1 \mathrm{H}$, Principles of Biology .....  4
** Biology 3, Natural History Approach to Biology ..... 4
Biology 4, Principles of Zoology ..... 5

Biology 6, Principles of Botany ........................ 5
Biology 20, Human Anatomy4
Biology 22, Human Physiology .....  5
Biology 31, Microbiology ..... 4
Area 6 - UC Requirement in LanguageOther than English (see note 3)
Area 7 - CSU Graduation Requirement in
U.S. History/ Constitution/ American Ideals
Political Science 2, American Government .....  3
History 11 or 12, U.S. to/from 1865 ..... 3
Notes: 1. Courses may be listed in more than one area, but can be certified in only one area.
2. ** Indicates that transfer credit may be limited by either UC or CSU or both. Please consult with a counselor for additional information.
3. The UC "Language Other Than English" requirement (required for IGETC certification) can be met by two years of high school study (same language, "C" or better grades) or by completion of two collegelevel foreign language courses ( 1 and 2) with "C" or better grades.
4. All courses listed for IGETC are approved for CSU GE and are transferable to UC.
5. Advanced Placement credit: Exam scores of 3, 4 or 5 can be used to meet IGETC subject areas and English Composition but not Critical Thinking.
6. This pattern should not be used for the following majors at the University of California campuses listed. It either will not be accepted or contains more courses than are required. Use the GEBreadth requirement for the individual program in the campus catalog. It is critical for admission that students complete all lower division major preparation in addition to the GE-Breadth requirement selected.

## U.C. Berkeley

College of Chemistry
College of Engineering
College of Environmental Design
College of Natural Resources -
No breadth requirements, take major prerequisites.

## Haas School of Business

College of Letters and Science -
Not recommended for biological, physical and
computer sciences, development studies, mass communications, political economy of industrial societies, and psychology.
U.C. Davis

College of Engineering
College of Agriculture \& Environmental Sciences -
Not recommended for biological sciences, psychology and environmental policy analysis and planning.
U.C. Irvine

School of Engineering
School of Biological Sciences
School of Physical Sciences
U.C. Los Angeles

School of Engineering and Applied Sciences
School of Nursing -
Not recommended for the biological and physical sciences. Must complete lower division major prerequisites.
U.C. Riverside

College of Engineering including major of computer science -
Not recommended for the biological and physical sciences or the College of Natural and Agricultural Science. Must complete lower division major prerequisites.
U.C. San Diego

Division of Engineering
Eleanor Roosevelt (all majors)
Revelle College (all majors)
U.C. Santa Barbara

College of Engineering -
IGETC can be used for biological sciences, biopsychology, chemistry, environmental science, geology, and geophysics, but lower division major prerequisites must be completed.
U.C. Santa Cruz

IGETC can be used for all majors, but students in biological sciences, chemistry, computer and information science, computer engineering, earth sciences or environmental studies must complete lower division major prerequisites.

## California Articulation Number (CAN)

The California Articulation Number (CAN) system identifies some of the transferable, lower division, introductory, preparatory courses commonly taught within each academic discipline on college campuses.
The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN course on another participating campus. Example: CANECON 2 on one campus will be acceptable for CANECON 2 on another participating campus. Each campus retains its own numbering system.
Although the system is presently in the initial stage of development, it is expected that most campuses throughout the state will qualify to participate and use CANs. Check with counseling offices and academic advisors, as well as campus publications, for lists of participating campuses and courses.
The California Articulation Numbers are listed parenthetically following the course description in this catalog.
Fresno City College has qualified to use California Articulation Numbers (CANs) on the following courses:
CAN Fresno City College Courses
AJ 2 CRIM 1, Intro to Criminology
AJ 4 CRIM 6, California Criminal Law
AJ 6 CRIM 3, Legal Aspects of Evidence
AJ 8 CRIM 8, Criminal Investigation
ANTH 2 ANTHRO 1, Physical Anthropology
ANTH 4 ANTHRO 2, Cultural Anthropology
ART 2 ART 5 or 5H, Art History 1
ART 4 ART 6 or 6H, Art History 2
ART 6 ART 10, Beginning Ceramics
ART 8 ART 7, Beginning Drawing
ART 10 ART 9, Beginning Painting: Oil/Acrylic
ART 12 ART 11, Beginning Sculpture
ART 14 ART 3, Two-Dimensional Design
ART 16 ART 4, Three-Dimensional Design
ART 18 PHOTO 10, Basic Black \& White Photography
ART 14, Beginning Printmaking
ART 35, Color Theory
ART 8, Beginning Life Drawing \&
Anatomy
ART SEQ A ART 5+6, Art History 1 \& 2
BIOL 2 BIOL 1 or 1H, Principles of Biology
BIOL 4 BIOL 4, Principles of Zoology

BIOL 6 BIOL 6, Principles of Botany
BIOL 10 BIOL 20, Human Anatomy
BIOL 12 BIOL 22, Human Physiology
BIOL 14 BIOL 31, Microbiology
BIOL SEQ A BIOL $1+4+6$, Principles of Biology

+ Zoology + Botany
BIOL SEQ B BIOL $20+22$, Human Anatomy
+ Human Physiology
BUS 2 ACCTG 4A, Principles of Financial Accounting
BUS 4 ACCTG 4B, Principles of Managerial Accounting
BUS 6 IS 15, Computer Concepts
BUS 8 BA 18, Business and the Legal Environment
BUS SEQ A ACCTG 4A $+4 B$, Principles of Financial
Accounting + Principles of Managerial Accounting
CHEM 2 CHEM 1A, General Chemistry
CHEM 4 CHEM 1B, General Chemistry and Qualitative Analysis
CHEM SEQ A CHEM 1A + 1B, Gen Chemistry + Gen
Chemistry and Qualitative Analysis
CHEM SEQ B CHEM 3A + 3B, Intro to Gen Chemistry
+ Intro to Organic \& Biological Chemistry
CHIN 2 CHIN 1, Beginning Chinese
CHIN 4 CHIN 2, High- Beginning Chinese
CHIN SEQ A CHIN 1+2, Beginning/High -
Beginning Chinese
CSCI 6 IS 47, Visual Basic
CSCI 16 IS 36, Beginning Ctt Programming
CSCI 20 CSCI 40, Internet Basics
CSCI 24 CSCI 41, World Wide Web Research
DRAM 8 TA 41, Elementary Techniques of Acting
DRAM 12 TA 25, Theatre Crafts I
DRAM 14 TA 28, Intro to Stage Makeup
DRAM 16 TA 37, Play Production Lab
DRAM 18 TA 30, Theatre Appreciation
DRAM 22 TA 43, Interm ediate Techniques of Acting
ECON 2 ECON 1A, Principles of Macroeconomics
ECON 4 ECON 1B, Principles of Microeconomics
ENGL 2 ENGL 1A or 1AH, Reading \& Composition

ENGL 4 ENGL 1B or 1BH, Intro to Study of Literature
ENGL 8 ENGL 46A, English Literature to 1800
ENGL 10 ENGL 46B, English Literature from 1800-Present
ENGL 14 ENGL 48A, Intro to American Literature to World War I
ENGL 16 ENGL 48B, Intro to American Literature from World War I to the Present
ENGL SEQ A ENGL 1A +1 B , Reading \& Composition + Intro to the Study of Literature
ENGL SEQ B ENGL 46A+46B, English Literature
ENGL SEQ C ENGL 48A+48B, Intro to American Literature
ENGR 2 ENGR 2, Graphics
ENGR 6 ENCR 6, Circuits with Lab
ENGR 8 ENGR 8, Statics
ENGR 10 ENGR 1A, Elementary Plane Surveying I
FCS 2 FN 40, Nutrition
FCS 8 FN 1, Principles of Food Preparation
FCS 10 HEC 24, Beginning Sewing
FCS 12 SOC 32, Courtship, Marriage and Divorce: Family and Interpersonal Relationships
FCS 14 CHDEV 39, Child Development
FREN 2 FRENCH 1, Beginning French
FREN 4 FRENCH 2, High-Beginning French
FREN SEQ A FRENCH 1+2, Beginning/HighBeginning French
FREN SEQ B French $3+4$, Intermediate/ High-Intermediate French
GEOG 2 GEOG 1, Physical Geography
GEOG 4 GEOG 2, Cultural Geography
GEOL 2 GEOL 1, Physical Geology
GEOL 4 GEOL 2, Historical Geology
GERM 2 GERMAN 1, Beginning German
GERM 4 GERMAN 2, High-Beginning German
GERM 8 GERMAN 3, Intermediate German
GERM 10 GERMAN 4, High-Intermediate
German
GERM SEQ A GERMAN 1+2, Beginning/HighBeginning German
GERM SEQ B GERMAN 3+4, Intermediate/HighIntermediate German
GOVT 2 POLSCI 2, American Government HIST 2 HST 1 or 1H, Western Civilization to 1648

| HIST 4 | HIST 2 or 2H, Western Civilization Since 1648 | PHYS 12 | PHYS 4B, Physics for Scientists and Engineers |
| :---: | :---: | :---: | :---: |
| HIST 8 | HIST 11, History of the U.S. to 1865 | PHYS 14 | PHYS 4C, Physics for Scientists and |
| HIST 10 | HST 12, History of the U.S. Since |  | Engineers |
|  | 1865 | PHYS SEQ A | PHYS 2A+2B, General Physics 1/2 |
| HIST SEQ A | HST 1+2, Western Civilization | PHYS SEQ B | PHYS 4A $+4 \mathrm{~B}+4 \mathrm{C}$, Physics for |
| HIST SEQ B | HIST 11+12, History of the U.S. |  | Scientists and Engineers |
| JAPN 2 | JAPAN 1, Beginning Japanese | PSY 6 | PSY 42, Statistics for the Behavorial |
| JAPN 4 | JAPAN 2, High-Beginning Japanese |  | Sciences |
| JAPN SEQ A | JAPAN 1+2, Beginning/High- | PSY 10 | PSY 36, Intro to Psychophysiology |
|  | Beginning Japanese | REC 2 | REC 20, Introduction to Recreation |
| JOUR 2 | JOURN 3, Newswriting | REC 4 | REC 21, Recreation Leadership |
| JOUR 4 | JoURN 1, Intro to Mass | RUSS 2 | RUSS 1, Beginning Russian |
|  | Communication | RUSS 4 | RUSS 2, High-Beginning Russian |
| KINE/PE 2 | PE 22, Introduction to Physical | RUSS 8 | RUSS 3, Intermediate Russian |
|  | Education | RUSS 10 | RUSS 4, High-Intermediate Russian |
| KINE/PE 4 | PE 20, Care and Prevention of Athletic Injuries | RUSS SEQ A | RUSS 1+2, Beginning/High-Beginning Russian |
| KINE/PE 8 | HLTH 2, First Aid and Safety | RUSS SEQ B | RUSS 3+4, Intermediate/High- |
| KINE/PE 10 | PE 25, Water Safety Instructor |  | Intermediate Russian |
| MATH 2 | MATH 45, Contemporary Math | SOC 2 | SOC 1A, Intro to Sociology |
| MATH 4 | MATH 41, Number Systems | SOC 4 | SOC 1B, Problems of Society |
| MATH 8 | MATH 4A, Trigonometry | SPAN 2 | SPAN 1, Beginning Spanish |
| MATH 12 | MATH 21, Finite Mathematics | SPAN 4 | SPAN 2, High-Beginning Spanish |
| MATH 16 | MATH 4B, Precalculus | SPAN 8 | SPAN 3, Intermediate Spanish |
| MATH 18 | MATH 5A, Mathematical Analysis I | SPAN 10 | SPAN 4, High-Intermediate Spanish |
| MATH 20 | MATH 5B, Mathematical Analysis II | SPAN SEQ A | SPAN 1+2, Beginning/High-Beginning |
| MATH 22 | MATH 6, Mathematical Analysis III |  | Spanish |
| MATH 24 | MATH 7, Introduction to Differential Equations | SPAN SEQ B | SPAN $3+4$, Intermediate/HighIntermediate Spanish |
| MATH SEQ B | B MATH 5A+5B, Mathematical Analysis | SPCH 4 | SPEECH 1, Beginning Speech |
|  | I/II | SPCH 6 | SPEECH 25, Argumentation |
| MATH SEQ C | C MATH 5A $+5 \mathrm{~B}+6$, Mathematical | SPCH 8 | SPEECH 2, Interpersonal |
|  | Analysis I/II/III |  | Communication |
| MUS 10 | MUS 12, Music Appreciation | STAT 2 | MATH 11, Elementary Statistics |
| PHLL 2 | PHIL 1A or 1AH, Theories of Knowledge, Existence \& Beauty | The CAN System is designed to facilitate student transfer between and among public institutions of higher education in the State of California. |  |
| PHL 4 | PHIL 1C, Ethics |  |  |
| PHYS 4 | PHYS 2B, General Physics 2 |  |  |
| PHYS 8 | PHYS 4A, Physics for Scientists and |  |  |
|  | Engineers |  |  |

# ADMINSTRATIVE REQUREMENTS 

## Student Conduct Standards

Students are expected to conduct themselves as adults whenever they are on the campus or representing Fresno City College in any activity. The Board of Trustees has adopted specific rules and regulations governing student behavior along with applicable penalties for violations. The student conduct standards and discipline policy (Board Policy No. 5410) is cited below, and students consequently are held responsible for familiarizing themselves with these rules and regulations (Education Code 66300). All campus activities must have the prior approval of the administration of the college.

## Policy Statement

Once a student enrolls in courses on a campus of the State Center Community College District, that individual accepts both the rights and responsibilities associated


Fresno City College has many leading-edge programs. The Learning Communities program gives students the unique opportunity to have theme-based classes.
with that enrollment. The State Center Community College District exists to educate individuals in our com munity. All other considerations are secondary. The district will not infringe on anyone's constitutional rights and the right to dissent and to protest will be supported. However, the right to dissent and to protest must not be construed as a right to disrupt operation of the institution. No individual or group can be permitted to infringe on the rights of others to secure an education.

These conduct standards, and Administrative Regulation 5410 which defines discipline procedures, apply to all students who are enrolled in courses offered by either college of the State Center Community College District. Any student will be subject to discipline who, in any way:

1. prevents other students from pursuing their authorized curricular or co-curricular interests;
2. interferes with or disrupts faculty and administrators who are fulfilling their professional responsibilities;
3. prevents classified employees from fulfilling their prescribed duties;
4. disrupts presentations by authorized guests; or
5. deliberately endangers the safety of persons, or the security of college property.

## Student Assembly

In accordance with state law, the district recognizes the right of peaceful assembly and will make facilities available for recognized staff and student groups when such assembly does not obstruct free movement of persons about the campus, the normal use of classroom buildings and facilities, and normal operations of the college or the instructional program, and when it does not jeopardize the safety of persons, lead to the destruction of
property, or violate the laws of the district, state or nation. Persons who are not members of the student body or the college and who violate this policy shall be subject to the control of public authorities.

## Exercise of Free Expression

In stating its policy on the distribution of materials, the governing board of this district has assumed that each student is responsible for his/her actions individually, even when acting as a member of an organization, and that no student, by following district or college policies, regulations or procedures, escapes individual responsibility for observing laws relating to such matters as libel, copyright violation, and obscenity.

Bulletins, circulars, publications, or articles of any character prepared by a student currently enrolled in an institution of this district, or by a campus organization officially recognized by a college of this district may be distributed on a college campus of this district only when such distribution is in accordance with established regulations.

With the exception of publications and materials sold or circulated by offices or agencies of this district and of district colleges, all publications and materials to be circulated on campuses of the district shall be subject to the foregoing policy provisions.

This policy is not intended to limit the use of sectarian, partisan, or denominational materials for legitimate library and classroom use.

## Student Protests and Demonstration

The students, faculty, and administration of the community college district are expected to respect the rights of the minority just as much as they respect those of the majority. Every individual, operating within the law, is guaranteed the basic freedoms. Students may participate in demonstrations or protests as long as they do not interfere with the main job of the college - education. Picketing, demonstrations, or other forms of protest are not to be carried on so as to interfere with instructional activities or the normal flow of student traffic in and out of buildings.

Each college has the right to make and enforce reasonable regulations relating to the time, place, and manner of the exercise of these rights, in order to prevent interference with college programs and services.

## Student Publications

Student publications are a valuable aid in establishing and maintaining an atmosphere of free and responsible
discussion and in intellectual exploration. They serve as a means of bringing student concerns to the attention of the college community and the public and of formulating student opinion on various issues.
The editorial freedom of student editors and managers entails corresponding responsibilities to be governed by the canons of responsible journalism such as the avoidance of libel, indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo. As safeguards for the editorial freedom of student publications, the following provisions shall apply:

1. Editors and managers of student publications shall be protected from arbitrary suspension and be removed only for proper cause through orderly procedures.
2. All college published and financed student publications shall state explicitly on the editorial page that the opinions there expressed are not necessarily those of the college or the student body.

## Causes for Discipline

A student enrolled in courses offered by either college of the State Center Community College District assumes an obligation to conduct him/herself in a manner compatible with the college's function as an educational institution. A student may be disciplined, utilizing the procedures set out in Administrative Regulation 5410, for any of the following causes, which must be related to college attendance or activity:

1. Dishonesty, including, but not limited to, cheating, plagiarism, or furnishing false information to the college.
2. Forgery, or misuse of college documents, records, or identification card, including misrepresentation of oneself or of an organization, as an agent of the college or district.
3. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other college activities, including, but not limited to, community service functions or other authorized activities on or off college premises.
4. Physical abuse or threat of physical abuse, on or off college property, of the person or property of any member of the college community or of members of his/her family.
5. Theft of or damage to property of the college, or to property of a member of the college community
or of a campus visitor who is attending an authorized college function.
6. Unauthorized entry to college facilities or use of college supplies or equipment.
7. Violation of college policies, including, but not limited to, campus regulations concerning student organizations, the use of college facilities, or the time, place, and manner of public expression.
8. Possession or use of explosives, dangerous chemicals or deadly weapons on college property or at a college function without prior authorization of the college president or his designee.
9. Disorderly conduct or lewd, indecent, or obscene conduct or expression on college-owned or collegecontrolled property or at college-sponsored or college-supervised functions.
10. Failure to comply with lawful directions of college officials performing their duties.
11. Possession or use of alcoholic beverages or controlled substances such as illegal drugs or narcotics on college property, at any college-sponsored event, or appearance on campus or at any college-sponsored event while under the influence of alcohol or illegal drugs or narcotics.
12. Possession, while on a college campus or at a collegesponsored function, of any of the following weapons (this provision does not apply to persons given permission by the college president or his designated representatives or members of law enforcement agencies such as police officers): any instrument or weapon of the kind commonly known as blackjack, sling shot, fire bomb, billy club, sandclub, sandbag, metal knuckles; and dirk, dagger, firearm ( such as pistol, revolver, rifle, etc.) loaded or unloaded; any knife, switchblade; any razor with an unguarded blade; any metal pipe or bar which could be used as a club; or any item such as a chain, which could by used to threaten bodily harm.
13. Abusive or insulting behavior, including hazing, directed toward a member of the college community.
14. Violation of any lawful order of an authorized administrator, notice of which has been given prior to such violation, and which order is not inconsistent with any of the other provisions of this policy, including notices given by publication in the college newspaper.
15. Assisting another to do any act which would subject such other student to expulsion, suspension, probation, or other discipline pursuant to this policy.
16. Any other cause identified as good cause by Education Code Section 7603 although not identified above.
17. Attempting to do any of the acts identified above.

Fresno City College offers two years of academic and occupational education and seeks to develop responsible, democratic citizenship. Students are responsible for their conduct, and failure to adhere to accepted standards will result in disciplinary action. Instructors shall be in charge of their classes, and students are under obligation to respect the authority of each instructor.

Fresno City College reserves the right to exclude at any time a student who, in the judgment of the administration, is not taking proper advantage of the opportunities offered.

## Academic Dishonesty

Academic dishonesty is unacceptable and will not be tolerated by Fresno City College. Cheating, plagiarism and collusion in dishonest activities erode the college's educational and social role in the community.

## Cheating

Cheating is the act of deception by which a student misleadingly demonstrates that he/she has mastered information on an academic exercise. Examples include but are not limited to:

1. Copying or allowing another to copy a test, paper, project or performance.
2. Using unauthorized materials during a test, for example, notes, formula lists or "cheat sheets."
3. Taking a test for someone else or permitting someone to take a test for you.

## Plagiarism

Plagiarism is the act of representing the work of another as one's own without giving credit. Plagiarism includes but is not limited to:

1. Incorporating the ideas or words of another's work without giving appropriate credit.
2. Representing another's artistic or scholarly works, such as musical compositions, computer programs, photographs, etc., as one's own.

## Disciplinary Procedures

When a faculty member discovers a violation of the cheating or plagiarism policy, the faculty member:

1. Will arrange a conference with the student and at that time advise the student of the allegations.
2. Will notify the dean of the division in writing that an act of dishonesty has occurred. This report will become a part of the student's permanent record. A copy will be mailed or given to the student.
3. May give the student an " $F$ " for the assigmment and/ or for the course, depending upon the seriousness of the infraction.
If the student's permanent record indicates more than one occurrence of cheating or plagiarism, the student may be placed on probation, suspended or expelled by the Dean of Students.
A student may appeal to the Academic Standards Committee any sanctions employed based on an allegation of dishonesty. Such an appeal must be made within fitteen (15) days after notification is mailed or given to the student.

## No Smoking in Campus Buildings

In order to provide a healthier climate for teaching, learning and study, smoking and use of tobacco products is prohibited in all campus buildings. Additionally, tobacco products are not sold on campus.

## Drug Abuse Policy

For the protection of other students in the State Center Community College District, the Governing Board of this District may suspend or expel, and the Chancellor of this District is authorized to suspend a student whenever it is established to the satisfaction of the Board or the Chancellor, as the case may be, that the student has on college premises used, sold or been in possession of narcotic or other hallucinogenic drugs or substances, or has on college premises inhaled, or breathed the fumes of, or ingested any poison classified as such by Schedule D in Section 4160 of the Business and Professions Code.

## Parking Regulations

Student vehicles must display a Fresno City College parking permit to park in campus parking lots.
Students are requested to observe parking regulations with regard to red no-parking zones, private driveways, double parking, handicapped zones, restricted lots, etc., and are reminded that parking in these areas could result in a citation or the vehicle being towed away at the student's expense.
The State Center Community College District Police Department will strictly enforce these regulations. Students are advised to arrive early enough for their first class to allow time for them to obtain a parking space, which may be some distance from the classroom, and to arrive in the classroom on time.
Students may pick up a copy of the complete parking regulations at Campus Police, Calaveras and Weldon, or at the campus Business Office, Administration Building, room 109.

## Attendance

Students may be dropped from class if they fail to attend the first class session of the semester. There are no institutionally approved excused absences for any reason. Only your instructor may excuse an absence. Absences caused by personal engagements, transportation delays and business affairs will not be excused, nor will absences from class to complete registration or add/drop activities.
The faculty places strong emphasis on attendance in all classes. Students are expected to be in the classroom at the time the class begins. Instructors are required to take attendance at each class session and to report any student who is absent for two successive weeks of instruction. Unless there are significant extenuating circumstances, that student will be immediately dropped from class by the instructor if the absences are within the 50 percent drop deadline ( 50 percent of the class term). Additionally, when a student's lack of attendance causes an instructor to judge that unsatisfactory progress is being made, that student may be dropped from class by the instructor if the absences are within the 50 percent drop deadline. Lack of regular attendance after the 50 percent drop deadline may result in an unsatisfactory grade.

Once dropped, should a student believe there is just cause for reinstatement, the student may petition through the office of Admissions and Records. Reinstatement will be granted only if the student had been doing satisfactory work immediately prior to the excessive absence and if it is the judgment of the instructor that the student has a reasonable chance of passing the course.

## IIIness

Students who have a communicable disease or any illness or injury which will cause an absence of one week or more may notify the Health Service office. In these circumstances, the Health Service office will transmit messages to instructors. Students may call the Health Service office at 442-8268.

The Health Service office may exclude any student from campus who is infected with any contagious or infectious disease (Title 5, California Code § 48211 and 48212).

The student will be permitted to return when school authorities are satisfied that any contagious disease does not exist (Education Code § 49451).

## Excused Absence Verification Form

Students seeking an excused absence should utilize the Excused Absence Verification Form, which must be signed by the instructor prior to the absence. Such absences obligate a student to make up all work missed. Forms are available in the office of the Dean of Students, room 224, in the Student Services Building.

## Makeup Work

Makeup work must be completed to the satisfaction of the instructor of the course. Being excused from class does not relieve the student from the responsibility for completing all assignments.

## Leaves of Absence

In emergency situations for a period of time not to exceed five days, a leave of absence may be granted. The student making the request must have satisfactory progress in each class. If the instructors all agree to the leave and sign the petition, the Dean of Students then may consider granting the request for leave.

Leaves should not be requested and cannot be granted near the end of a semester or during mid-term or final examinations.

A student should plan carefully prior to taking a leave.

1. Request a petition form (in the office of the Dean of Students) and complete immediately.
2. Make up all work before leaving.
3. Have the request for a work leave verified by the employer. Give the employer's telephone number.
4. Request the consent of the instructor and secure his or her signature.
5. Request the consent of the Dean of Students.
6. File the completed form in the office of the Dean of Students.

## Dropping a Class

It is the student's responsibility to drop a class in which she/he no longer wishes to be enrolled. A student may withdraw from a full-term (16-18 week) class through the last day of the ninth week of instruction (or 50 percent of a term,* whichever is less). There will be no grade entered on a student's record for drops during the first three weeks of a 16-18 week class or prior to the 20 percent point of a short-term class. Agrade of "W" will be entered on the student's record for drops beginning at the 20\% point of a class and through the $50 \%$ point of a class. The "W" will not be used in calculating grade point averages, but excessive "W's" will be used as factors in progress probation and dismissal procedures.

Proper forms may be obtained from Counter B, Admissions and Records Office, Student Services Building, or students may request to be dropped from class(es) by mailing a signed letter to the college.
*Term in this context means the duration of a course which differs from the length of a normal semester.

## Program Changes

Errors in registration should be rectified during the first week of each semester. Students are encouraged to discuss with their counselors program changes that affect their educational plans.

## Withdrawal from College

Any student wishing to withdraw from college may obtain a withdrawal form from the Admissions and Records Office, Student Services Building, or mail a signed letter citing need to withdraw (include social security number). A student may withdraw from college within 50 percent of a class' duration. Please see information shown under Satisfactory Progress for grading policies relative to withdrawals and resultant effects on students' records. See page 17.

## Extenuating Circumstances

In implementation of Title 5, Section 55758, with this district, the following conditions are defined as extenuating circumstances to the general application of college drop-date procedures: documented cases of accidents, illness, death in the immediate family, military duty, jury duty, family displacement, job displacement, instructor error and/or other circumstances which are justifiable in the judgment of the college president or his designee.

## Withdrawal From Classes

Once the deadline to withdraw from class(es) has passed ( 50 percent of a class' duration), neither a student nor an instructor may request a withdrawal. However, a student may petition to withdraw after the deadline based upon extenuating circumstances (see above).
Agrade of "W" will be entered on the student's record. The "W" will not be used in calculating grade point averages but will be used as a factor in progress probation and dismissal procedures.

Petitions for withdrawal based upon extenuating circumstances are available at the Admissions and Records Office, Counter B.

1. The extenuating circumstance must be fully documented and verified. Petitions for medical withdrawals must be processed through the Health Service office.
2. The student must petition for withdrawal based upon extenuating circumstances no later than the end of the semester immediately following the semester he/shewishes to withdraw. Exception to this policy may be made on a case-by-case basis upon appeal to the Academic Standards Committee.
3. With few exceptions, the student must petition to withdraw from all courses in which he/she is/was enrolled.
4. The student's instructors will be consulted concerning the request for withdrawal.
5. Once a final grade has been issued for a class, the instructor must agree to the student's withdrawal request.

Change of Address or Telephone Number

Students who have a change in address or telephone number are required to officially notify the college in writing by submitting the change to the Admissions and Records Office, Webroom or $\log$ on to www.fresnocitycollege.com.

## Social Security

Students receiving benefits from Social Security must be enrolled as full-time students ( 12 units for regular semester and 4 units for summer session). Students who drop below the required number of units must notify the Social Security Office; payments will cease as of the month reported.

## Family Education Rights and Privacy Act (California State and Federal Legislation)

The Family Education and Privacy Act outlines certain rights students have concerning access to and release of their educational records. A comprehensive District policy outlining these rights is available from the Admissions and Records Office. Each student is encouraged to obtain a copy.

Briefly, the Act ensures that the students will have access to their educational records, that the college will not release their records to anyone who is not designated by the student to receive them, except as provided in the law itself.
The law authorizes the release of directory information in the absence of student objection. Please contact the Dean of Students for this information. Directory information includes name, address, telephone number, date and place of birth, major field of study, participation in activities, dates of attendance, degrees and awards, and last institution attended. Objection, if any, to the release of thisinformation may be made known in writing by filing the proper form at the Admissions and Records Office. Such objection shall be in force until changed by the student.

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Administrative Requirements

## Sexual Harassment Policy

It is the policy of the governing board of the State Center Community College District that no person shall, on the basis of ethnic group identification, national origin, religion, age, sex, race, color, physical or mental disability, or sexual orientation be subjected to unlawful discrimination in any program or activity of the district. It is further the policy of the governing board that the district shall maintain a working and learning environment free from sexual harassment of its students, employees, and those who apply for student or employee status. All students and employees should be aware that all institutions of the district are concerned and will take action to eliminate sexual harassment. Engaging in sexual harassment is conduct which may subject the harasser to disciplinary action.

Harassment on the basis of sex is a violation of State and Federal Law.

Sexual harassment means unwelcome sexual advances, requests for sexual favors and other verbal, visual, or physical conduct of a sexual nature, made by someone from or in the work or educational setting, under any of the following conditions:
a. Submission to the conduct is explicitly or implicitly made a term or a condition of an individual's employment, academic status, or progress.
b. Submission to, or rejection of, the conduct by the individual is used as the basis of employment or academic decisions affecting the individual.


Anumber of student activities take place throughout the year for students to participate in. With a very diverse student population, activities can provide learning experiences beyond the classroom.
c. The conduct has the purpose or effect of having negative impact upon the individual's work or academic performance, or of creating an intimidating, hostile, or offensive work or educational environment.
d. Submission to, or rejection of, the conduct by the individual is used as the basis for any decision affecting the individual regarding benefits and services, honors, programs, or activities available at or through the educational institution.
Complaints of sexual harassment should be processed according to the terms of District Administrative Regulation 5109.

A copy of the District sexual harassment policy and complaint procedures may be obtained from the Associate Dean of Students, Counseling and Guidance, Student Services building, upper level.

## Statement of Nondiscriminatory Policy and Obligations

Fresno City College does not discriminate on the basis of race, color, national origin, sex, handicap, age, or sexual orientation in any of its policies, procedures, or practices, in compliance with Title VI of the Civil Rights Act of 1964 (pertaining to race, color, and national origin), Title IX of the Education Amendments of 1972 (pertaining to sex), Section 504 of the Rehabilitation Act of 1973 (pertaining to handicap), and the Age Discrimination Act of 1975 (pertaining to age) and California State Law. This nondiscrimination policy covers admission and access to, and treatment and employment in, the college's programs and activities, including vocational education. Inquiries regarding the equal opportunity policies, the filing of grievances, or to request a copy of the grievance procedures covering discrimination complaints may be directed to:

Robert E. Fox
Dean of Students
Fresno City College
1101 E. University Avenue
Fresno, California 93741
(559) 442-4600, ext. 8595

The college recognizes its obligation to provide overall program accessibility throughout the college for handicapped persons. Contact Robert Fox, Dean of Students, to obtain information as to the existence and location
of services, activities and facilities that are accessible to and usable by handicapped persons.

The lack of English language skills will not be a barrier to admission and participation in the college's vocational education programs.

Inquiries regarding Federal laws and regulations concerning nondiscrimination in education or the District's compliance with those provisions may also be directed to:

Office for Civil Rights
U.S. Department of Education

221 Main Street, Suite 1020
San Francisco, CA 94105

## Declaración: Póliza de la No-

 Discriminación y las ObligacionesLa Universidad Comunal de Fresno (Fresno City College) no discrimina a causa de raza, color, origen nacional, sexo, incapacidad, de edad, u orientación sexual en alguna de sus pólizas, trámites, o prácticas, en el cumplimiento con el Título VI del Acta de Derechos Civiles de 1964 (refiriéndose a raza, color, y origen nacional), el Título IX de las Enmiendas Educacionales de 1972 (refiriéndose al sexo), la Sección 504 del Acta de Rehabilitación de 1973 (refiriéndose a la incapacidad), y al Acta de la No-Discriminación por Razón de Edad de 1975 (refiriéndose a la edad) y leyes de California. Esta póliza de la no-discriminación abarca la admisión
y el derecho a, y el trato y el empleo en los programas y las actividades de la universidad comunal, incluyendo la educación vocacional. Las preguntas concernientes a las pólizas de oportunidad equitativa, el registro de quejas, o el pedido de una copia del procedimiento de quejarse que cubre quejas de discriminación pueden ser dirigidas a:

Robert E. Fox
Dean of Students
Fresno City College
1101 E. University Avenue
Fresno, CA 93741
(559) 442-4600, ext. 8595

La universidad comunal reconoce su obligación de proveer acceso total a los programas en toda la universidad a personas incapacitadas. Llame a Robert Fox, Decano de Estudiantes, para obtener información acerca de la existencia y el local de servicios, las actividades y las instalaciones que son accesibles a y usadas por personas incapacitadas.
La deficiencia de destreza en el inglés no será una barrera para la admisión y la participación en los programas de educación vocacional de la universidad.
Preguntas acerca de las leyes federales y los reglamentos concernientes a la no-discriminación en la educación o el cumplimiento de esas dispocisiones también pueden ser dirigidas a:

Office for Civil Rights
U.S. Department of Education

221 Main Street, Suite 1020
San Francisco, CA 94105

## STUDENT SERUCES

Fresno City College is a community college that cares about students' success. As a FCC student, you will find a host of services to help you succeed, as well as friendly staff to provide assistance as you pursue your community college education.

## Counseling and Guidance

Fresno City College is committed to providing a professional counseling staff, a requirement under California Education Code, Title 5.

The Fresno City College counseling staff believe that their primary responsibility is to assist all students in realizing their full potential. Students can develop personal initiative and responsibility for planning their future only to the extent to which they have knowledge about themselves and the goals they have set.

The Fresno City College Counseling Center provides complete counseling and guidance services. Analyzing individual interests and abilities, making educational and vocational choices, improving study habits and skills, resolving personal problems, adjusting to college life


Counselors are available for students in helping decide their college objectives before they enroll in classes.
and providing an orientation for new students are among the services. Counselors also teach Guidance Studies, credit classes for job preparation, college survival skills, career planning, study skills and group dynamics.

Planning an academic program is each student's choice and responsibility. Students are urged to meet with a counselor well in advance of the registration period to obtain current information regarding their planned program and any catalog revisions. Counseling sessions are available day and evening without charge on a dropin basis.

The Counseling and Career Center is located on the upper level of the Student Services Building (telephone 442-4600, extension 8636).

## Transfer Center

The Transfer Center offers students the ability to plan for transfer to a baccalaureate college or university through a variety of resources and services provided to assistance in the transfer process. The center coordinates transfer activities and academic advising with the nine campuses of the University of California, the 22 campuses of the California State University, and provides information on public and private colleges and universities.

The Transfer Center Program supportive services include but are not limited to:

D Academic advising by counselors and university representatives

- Guaranteed Transfer Admission Programs for early admissions after completing a series of college preparatory courses to:

UC Berkeley (CAP-for seniors who attend Fresno City College directly after graduating), UC Davis (TAA), UC Riverside (TAG) and UC Santa Cruz (Gate). These programs are designed for students who have completed 30 University of California units with a minimum grade point average of a 2.8 and will complete 60 University of California provides admission priority to students applying from California Community Colleges over all other applicants.

- Assistance with admission processes and transfer procedures including housing, scholarship/ financial aid. General transfer information and Internet college resources
(www.fresnocitycollege.com)
- Organized tours and fieldtrips to various colleges and universities
- Library of current college catalogs, UC and CSU applications/fee waivers, college and university brochures, campus videos/computer discs, college computer programs/information and articulation agreements between Fresno City College and transfer institutions
- Transfer tracking system


## ReEntry Program

The ReEntry Program, located in the Counseling Center, provides support and encouragement in the successful transition to student life. Offering a variety of supportive services, the ReEntry Program assists adults who have been away from school and are now beginning or continuing their college education. This is a place to start for the adult who:
D Is entering college for the first time
D Has been a homemaker and is preparing to enter the outside labor market

D Is a single parent and returning to school
D Is struggling with career choices
D Desires to make a career change
D Wants to pursue a nontraditional career interest
The program provides pre-entry, academic and career advising; information and referral to on-campus and community resources; a variety of activities, programs, services and courses designed to meet the special needs of adult learners.

## College Relations

High school and community outreach services as well as new student orientation are coordinated through the College Relations office. College Relations specialists regularly visit high schools, businesses and community agencies to advise prospective students regarding college planning. Call 442-8225 for more information.

## CalWORKs

The CalWORKs Work Readiness Center, located in the Applied Technology 200 building, is a joint venture between the college and the Fresno County Health Services System (HSS). Both college and HSS personnel staff the center.
The program provides an array of services to those eligible to participate in the CalWORKs program. Some of the benefits may include:
D financial assistance with child care, transportation, book loans and college fees
D academic advising and personal and career counseling
D referral for supportive services

- CalWORKs Work Study
- provision of initial school supplies

If you are interested in the CalWORKs program or want to inquire about eligibility for CalWORKs benefits, telephone the Work Readiness Center at 442-8287.

## Career Center

The Career Center, a component of Counseling, is located on the upper level of the Student Services Building. It serves as a resource center for students, counselors, faculty and the community. The Center offers information on thousands of occupations and provides assistance with career planning. Trained staff members are available to provide guidance and direction in the use of materials and services.
Services include career assessments, career planning workshops and two computer-based career information systems. A 25 -station computerized Career Lab, located in the Assessment Center in the library, is also available to students. Lab resources include DISCOVER, which offers career planning guidance, and EUREKA, which features up-to-date information on over 2,400 occupations. In addition, the Career Center maintains a library of career books, videos and occupational files and other reference materials.

The Career Center also houses the campus collection of California college catalogs as well as catalogs for out-of-state colleges, college handbooks, and indexes to major programs of study in the U.S.

To help students with program planning, the Center maintains files of major sheets for over 600 majors. These sheets outline courses required for both Fresno City College majors and many transfer majors.

In a changing job market, knowledge of the world of work and of career planning skills is essential. The Career Center is an excellent place to start gathering information and exploring possibilities to make future plans. Most services are free to current students. For more information, visit the Career Center or call 4428291.

## Health Services

The Health Service office, located in the Student Services Building, room 112, is open during the fall and spring semesters from 8 a.m. to 7 p.m., Monday through Thursday, and from 8 a.m. to 4 p.m. on Friday. During the summer session, the office hours are from 8:30 a.m. to 12:30 p.m. Consultation with a college health


Athletics is one of the many opportunities available to Fresno City College students to help build their leadership and team skills.
nurse is available by appointment during scheduled hours.
Health services available to Fresno City College students include confidential health counseling, health education, screening tests, emergency first aid, assistance in obtaining medical care, limited immunizations and HIV and TB skin testing.

In addition to the above mentioned services, accident insurance coverage is available to students injured while on campus or at school-sponsored and supervised events. These services are supported by the $\$ 11$ health fee. Call 442-8268 for more information.

## Psychological Services

The goal of Psychological Services is to assist students who experience interpersonal or personal difficulties during their college stay so they can remain effective in their educational pursuit. Psychological counseling is available for a variety of problems, including issues stemming from:
D Adjustment to college life

- Depression and anxiety
- Relationships and communications skills

D Stress and anger management

- Mental illness

D Substance abuse

- Eating disorders

Psychological Services also provides crisis intervention, faculty consultation, and psychological testing/assessment. Counseling is provided by licensed psychologist(s), psychological interns and trainees. Located in the Student Center/ Bookstore building, upper level, appointment can be made in the Student Health Center or by calling 442-8268.

## Financial Aid

## Financial Aid and Scholarships

The college provides financial assistance to as many students as possible through scholarships, grants, loans and job opportunities. The following programs are available to qualified students:

- Federal PELL Grants

D Federal Work Study

- Federal Supplemental Educational Opportunity Grants
D Federal Direct Student Loans
- Boards of Governors Enrollment Fee Waiver

D Cal Grants
D Bureau of Indian Affairs Scholarships

- Other Institutional and Noninstitutional Scholarships
Expenses will vary with the type of housing, course of study, transportation, and other factors. Typical annual student expenses are outlined in the "Financial Aid Consumer Information Guide" available from the Financial Aid Office, Student Services Building, room 201.
Application forms and information concerning financial aid and scholarship programs are available in the Financial Aid Office, room 201, Student Services Building.
Students must apply by March 2 of each year prior to the fall semester if they wish to be considered for the Cal Grant program. Those students applying for the fall semester will be given priority, if eligible, for other state and federal programs if their application is processed and received by the Financial Aid Office by April 15 of each year. For more information, call 442-8245.


## Financial Aid Satisfactory Progress

To be eligible to participate in the Title IV student financial aid programs provided by the U.S. Department of Education and the State Center Community College District, students must maintain satisfactory academic progress in a program leading to a degree or certificate at the college or transfer to a four-year institution.

Students must maintain at least the minimum GPA required of all students (see Academic Dismissal) and must complete the required percentage of units attempted each semester (see Progress Dismissal). Students may not continue participating in financial aid programs after completion of a degree, 90 semester units of college work. Additionally, a student also may not be funded for more than 30 units of remedial course work. The student must be enrolled in an eligible program at Fresno City College, and the remedial course work must be necessary for the student to pursue an eligible postsecondary program.
Students who are terminated from financial aid programs or who are not allowed to participate due to failure to demonstrate or maintain satisfactory progress may appeal this action in writing. The Financial Aid Appeal Committee will review the student's progress and determine whether or not the student will be allowed to participate in financial aid programs. Petitions are available at the Financial Aid Office.

## Return of Federal Financial Aid Based Upon Total Withdrawal

A student, who withdraws from all their classes within $60 \%$ of a semester, will be reviewed by the Financial Aid Office to determine if all or part of any federal financial aid received must be returned to the federal government.

## Asistencia Financiera

La mayoría de los estudiantes reciben algún tipo de asistencia financiera. La ayuda financiera es para estudiantes con necesidad de dispensación de matrícula, premios, préstamos, empleo de temporalidad y becas.

## J ob Placement Services

Fresno City College recognizes that many students desire part-time employment to help finance their education and that it is necessary to provide full-time employment opportunities for continuing education students and graduates. The job placement program strives to provide a broad range of services not only for students and alumni of the college but also for employers who wish to list job openings. Servicees include job listings, employment advising, job search workshops, on-campus interviews with employers, job fairs and a job search resource center.
Employment information and applications are available in the Job Placement Office located in the Learning Resources Center, LI 147. Employers may listjob openings by calling (559) 442-8294.

## Extended Opportunity Programs and Services (EOPS)

EOPS is a state-supported project that provides a comprehensive program of services for low-income and academically disadvantaged students. The project includes academic counseling, personal advisement, special instruction, summer readiness, career guidance, tutorial assistance, academic mentoring, financial aid, college transfer counseling, book grants, emergency loans, vocational internship, CARE (a program for single head of hou sehold parents and priority registration.
Participants are selected according to academic and financial need. The goals of EOPS are directed toward (a) ensuring open access, (b) enhancing student retention, (c) developing systems to increase student
success, and (d) providing counseling and support services to achieve vocational training or transfer success.

Students are identified as eligible by the project staff, contacted and provided an orientation, which specifies student and program mutual responsibilities. EOPS mandated services such as educational plan development, progress review session, tutorial participation and end-of-term evaluation are specified.

Participants must enroll in 12 units and maintain a minimum of 8 units throughout each semester including the classes specifically designated for his/her major. Once selected, the EOPS student continues to receive top priority for continuing EOPS assistance as long as he/she maintains adequate academic progress and meets all program requirements.

EOPS is located in the Student Services Building, lower level, room ST-101.

## Upward Bound Program

The Fresno City College Upward Bound Program, located in room SC-216, is designed to improve the academic performance and motivation of economically disadvantaged, high potential secondary school students (grades 9-11).

From September to May, tutorial and instructional sessions are conducted at targeted high school. Two Saturdays per month, students are invited to the Fresno City College campus to engage in academic and inspirational workshops designed to increase their skill development.

During the six-week summer session (June-July), students participate in courses developed to stimulate their minds and prepare them for college life. Excursions to other institutions of higher education are also planned to enhance students' knowledge of the benefits of education. The goal of the Upward Bound Program is to stimulate leadership, responsibility, independence and to ensure academic success.

## IDILE Program

Fresno City College's IDILE Program is designed to enhance the leadership skills of all students, with emphasis on African Americans, while helping them develop the self-confidence to succeed in the post-secondary education experience.

IDILE (pronounced "e dee lay") is a word borrowed from the African Yoruba Tribe that means "the root or
source of the family". The nurturing and mentoring approach taken by the specially trained counselor and instructors committed to helping students succeed at Fresno City College accurately reflects and reinforces the definition of the program's moniker. The IDILE experience creates a family of students within the larger FCC family and community of student citizens to provide opportunities for them to build camaraderie with peers and develop lasting relationships with mentors. To obtain additional information about the IDILE program, call 442-4600, ext. 8643.

## Puente Project

The Puente Project at Fresno City College provides students with accelerated writing instruction, sustained academic counseling, and mentioning by professionals from the community. Students participate in the program for two consecutive semesters. The program consists of English 125, English 126, and Guidance Studies 50 the first semester and English 1A and Guidance Studies 48 the following semester. The course content of the Puente classes has a Chicano/Latino emphasis. Throughout both semesters, Puente students also maintain contact with their assigned Puente mentor.

The purpose of the Puente Project is to increase the number of Fresno City College Puente students who transfer to four-year colleges and universities. Puente students participate in extra-curricular activities and field trips that promote transfer opportunities. Success at Fresno City College and the continued pursuit of higher education is greatly emphasized. The Puente Project is open to all students. The office is located in the Bookstore building, second floor, room 223. For information call 442-4600, ext. 8644 or 8623.

## USEAA Academic Program

USEAA (pronounced "you see ah") Academic Program at Fresno City college was established in the fall of 1999 to serve the needs of Southeast Asian American students in higher education. The program has a special emphasis on the Southeast Asian American culture and experience and is designed to prepare students for transfer success to four-year colleges or universities However, USEAA is open to all students from diverse backgrounds and ethnicities who are eligible for English 125 and 126.

As a USEAA student, you will participate in various
activities that promote student success. You will take English 125, English 126, and Guidance Studies 47A in the Fall Semester and English 1A and Guidance Studies 48 in the Spring Semester; English 1A is a transferable course. Your English instructors teach you the effective development of college reading, writing, and composition skills in stimulating classroom environments. You also receive personalized academic, career, and personal counseling from your USEAA counselor to assist you in planning your education.

USEAA promotes environment that motivates students to learn, develop, grow, and achieve. The USEAA office is located above the bookstore, 2nd floor, Room 223, (559) 442-4600, extension 8639, or email: victor.yang@ scccd.com.

## Learning Resources Center (LRC)

The college Learning Resources Center, located on the south side of the campus, houses all the supplemental learning resources for faculty and students. The LRC includes the Library, Media Center, Tutorial Center and Open Computer Lab. The High Tech Lab, a distance learning classroom, the Assessment Center and a special math lab make up the remainder of the LRC.

## Library

The Library includes a 270-seat reference and research room, a 100 -seat periodicals room plus the 200 -seat reading and stack area. The Library houses more than 75,000 volumes and regularly receives over 1,000 periodicals and newspapers in hard copy and electronic formats. Library staff offers individual assistance in the use of the many learning resources available in the LRC.

## Media Center

The Media Center houses the administrative dean's office, instructional audiovisual services and the open computer lab.

In the centrally located Media Center office you will find the administrative dean's office and instructional audiovisual services, which include equipment circulation, graphic arts, the video library and audiovisual and computer equipment storage and repair.

The Learning Center includes stations equipped with cassette tape decks, videotape players and related materials for use by students or staff.

## Tutorial Services

The Student Success Tutorial Center offers all students on campus free learning assistance in all subject areas and basic skills. Students can receive help by walking in for math and English. For other subjects, arrange an appointment with the Tutorial Center receptionist. Call 442-8208.
The 69-station Computer Lab ( 65 IBM compatibles and 4 Macintoshes) has Internet and e-mail access and a variety of software for word processing and specialty programs required for certain classes. Assistance is available, but at least beginner-level computer skills are necessary. Call 442-8208.

## Disabled Students Programs and Services (DSP\&S)

Fresno City College offers services designed to assist students with disabilities in their pursuit of a community college education. Such students are assigned to a disabled student specialist who can arrange such services as college program planning, vocational career information, priority registration, special parking permits, learning disabilities testing, interpreters for the deaf, notetakers and other appropriate supportive services. Students will develop a specialized educational contract.
The student with a disability seeking admission to Fresno City College must meet the following levels of independence:

1. The ability to negotiate the campus facilities independently or with the assistance of an attendant (to be provided by the student);
2. The ability to take care of his/her personal needs independently or with assistance of a personal attendant; and
3. The possession of a stable level of health in order to benefit from a full semester's work.
Each student with a disability must sign an authorization at the time of registration which would allow Fresno City College, in the absence of a personal attendant, to seek emergency medical treatment and/or ambulance services in the event it is deemed necessary by Fresno City College. (All costs associated with such medial treatment/transportation are the sole responsibility of the student.)
Medical verification of disability must be provided to the Disabled Students Programs \& Services office to qualify for any of the following supportive services:
4. On campus mobility assistance
5. Use of special equipment (i.e., tape recorders and adaptive software)
6. Special parking permit
7. Priority registration
8. Interpreters for the deaf
9. Notetakers
10. Job Placement Assistance
11. Reader services
12. Test taking assistance

Architectural barriers have been eliminated through the use of low gradient ramps and automatic doors. The college maintains relationships with the Department of Rehabilitation, California Association for the Physically Handicapped and similar agencies. Call 442-8237 for more information or to speak with a counselor.

## Housing Information

Alist of housing accommodations in private homes and apartments for men and women may be secured by contacting the Director of College Activities in the College Center. There are also a few homes which will give room and board to students who are interested in working. The college assumes no responsibility for contracts made between landlords and students.

## Lost and Found

A lost and found department is maintained in the College Police Department, located on the east side of the campus on the corner of Weldon and Calaveras.

## Telephone and Mail Services

Telephone calls will not be transmitted to students. In cases of extreme emergencies, please call the College Police Department. Pay telephones are available for out-going calls around the campus. Mail should not be addressed to students in care of the college.

## College Police

The College Police Department aids in the instructional and administrative processes of the college and district by protecting the person and rights of all district employees, district and student body property, and private property. Assistance will be given to victims of any type
of crime or to persons seeking general law enforcement information. Individuals requiring emergency assistance can call campus police using one of the emergency telephones located in yellow boxes with blue lights outside campus buildings.

## Bookstore

The Fresno City College Bookstore is operated for the convenience of Fresno City College students. The store carries student supplies, textbooks and other articles of interest to the college community. Regular business hours are 7:30 a.m. to 7:00 p.m. Monday through Thursday and from 7:30 a.m. to 5:00 p.m. Friday. During the first and second weeks of each semester, hours are extended from 7:30 a.m. until 8:30 p.m. Monday through Thursday. The Bookstore is also open during the summer on a shortened day schedule but is not open in the evening hours.

## Refund Policy

Textbooks not in new condition will be given 75 percent (used price) of the original sticker price (receipt required).

## Refund Conditions

1. A receipt is required. Students must present their current cash register receipt with the correct dollar amount of the merchandise during the stated refund period. No refund will be given without the original receipt.
2. Textbook condition: Books must be in new condition, clean, free of all marks and erasures. A soiled or marked book is a used book and will be considered for a refund at the used book price. Obviously, this condition does not pertain to used textbooks. Used textbooks are sold "as is" in a reasonable and stable condition. Because these books have been used by other customers, prior to sale, the Bookstore cannot guarantee the life expectancy of any used book.
Personal checks are accepted with valid I.D. and student identification number. There is a $\$ 25$ service charge for all returned checks. Checks not clearing will result in a hold on student records. For further information, call 442-8261.

## Food Services

The dining center offers an inviting atmosphere to share ideas or study. Fast food is available at the Campus Café, which features cooked-to-order breakfast and lunch items. Gourmet coffees, juices, baked pastries and snack items are also available. The Campus Café is open for breakfast, lunch and dinner Monday through Thursday, and breakfast and lunch on Friday.

The Staff Dining Room provides a quieter atmosphere for enjoying breakfast or lunch.

Food Services offers catering services for campus functions.

The Pacific Cafe offers students "oriental style" menu items. The extensive menu also includes a selection of breakfast and lunch sandwiches, snack items and drinks. An outdoor patio adjoins The Pacific Cafe, which islocated in the Bookstore. Hours are 7:30 a.m. to 9:00 p.m. Monday through Thursday and 7:30 a.m. to 3:30 p.m. on Fridays.

For quick snacks, vending machines are located throughout the campus. They are contracted through Canteen.

## Child Development Centers

The Child Development Centers are state licensed.
The Centers provide a safe and rich learning environment for young children ages two through five and a supervised setting for the training of future child care professionals. Child care services are available for the children of students, staff and community members. The Centers are located: on campus at 1621 E. University Avenue (442-8235) and at Career \& Technology Center, 2930 E. Annadale Avenue (486-0173).

For information regarding available openings and current tuition fees, please call the above listed numbers.

## Public Information/ Public Relations

The Public Information/Public Relations Office provides on- and off-campus public relations, marketing and promotion for the college, and the many activities that occur on campus. All advertising, media relations and sports information are the responsibility of the Public Information Office. Brochures, class schedules, the college catalog, press releases, videos, sports programs and the bi-weekly campus newsletter, City at Large, are all
produced by the Public Information Office, using the most advanced techniques in desktop publishing and reprographics.
The Public Information Office also reviews all flyers and publications produced by other Fresno City College campus offices prior to on- or off-campus printing.

## The Training Institute

Increasing the value of a company's work force starts with the training or retraining of employees. The Training Institute offers the faculty and resources of a solid community college and can provide training on site. As partners in the economic development of the Central San Joaquin Valley, the Training Institute has training resources for any industry or business that wants to expand or locate here in the valley.
The Training Institute has become a primary resource for training, reeducation and continuing education for business, government and industry. "Custom classes," seminars or workshops provide learning opportunities with a variety of benefits. Classes are short-term and not-for- credit. Call the SCCCD Training Institute, 3234688, for more information.


Food Services at Fresno City College include many varieties of food and environments where students can relax and come together.

## STUDENT ACTIVTIES

The student activity program at Fresno City College offers students an opportunity to participate in student government, campus activities, and social and cultural events. Participation in student activities can contribute to the development of leadership and democratic ideals.

## Associated Students

The Associated Students participate in the governing of the college community through its executive body, the Student Senate. The Senate is composed of the student body president, executive and legislative vice-presidents and 16 senators. Officers must meet grade requirements as stated in the Constitution.

The following special interest clubs contribute actively to the growth and social life at Fresno City College:

- Alpha Beta Gamma

D Alpha Gamma Sigma (AGS)

- Alpha Omega
- American Institute of Architects (AIA)
- Anime Club
- Art Club
- Campus Crusade

D Chess Club

- Club Azteca

D Disabled Students Program Booster Club

- Fellowship of Christian Athletes
- Filipino-American Club
- Hmong Student Club

D Korean American Student Association

- Lao Student Association

D Latter-Day Saint Student Association

- MEChA(Movimento Estudiantil Chicanos de Aztlan)

D Medieval \& Renaissance Student Association
D Muslim Student Association

- Native American Indian Student Association (NAISA)
- Pan Afrikan Student Union (PASU)
- People to People International Club
- Philosophy Club
- Phi Theta Kappa

D Psychology Club
D Remnant

- Republican Club
- Students In Free Enterprise (SIFE)
- Student Paralegal Association
- Southeast Asian Club

Organization of New Clubs
To be officially recognized, a club must have a minimum of 15 participating members, a program of approved activities, regular meetings, an approved constitution and a full-time faculty sponsor. Those considering organizing a new club must consult and plan with the Director of College Activities.

## Social Activities

The social life of students at the college centers around the activities of the Associated Students' clubs and societies. Students are encouraged to participate in extracurricular activities that complement their classroom learning.

## Athletics

Fresno City College offers students the opportunity for intercollegiate activity in a wide variety of sports. Competitive teams found in both men's and women's athletic programs are basketball, cross country, golf, soccer, tennis, and track and field. Volleyball and softball are offered for women only, and football, baseball and wrestling are offered for men only. A physical examination by the team physician and a statement of existing medical insurance are required before participation in collegiate sports.
Fresno City College is a member of the Central Valley Conference in most sports and competes in the Bay Valley Conference for cross country, wrestling and women's golf.
Athletics at Fresno City College, as with all California community colleges, is governed by the general regulations of the State Community College Athletic Code as well as the specific regulations of the conferences in which Fresno City College holds membership.

## Music Activities

Music organizations at Fresno City College have dual functions: as courses for music credit and as college musical activities groups which perform for a variety of college and community events. The concert band; college choir; symphony orchestra; chamber singers; jazz bands; and woodwind, brass, piano, string, percussion, and vocal ensembles present recitals and concerts both on and off campus.
All performing groups are open to any student who has the musical ability and experience.

## Drama

Fresno City College produces several full-length plays each year. Any interested student is eligible to participate in these productions.

## Dance

The faculty and students in the Dance program produce two major dance productions each semester.

## Forensics

The college offers instruction and travel in competitive speech and debate. Any interested student is eligible to participate.

## Publications

The college offers students opportunities to work on publications through the production of the college newspaper, The Rampage.


Fresno City College men's and women's teams competein twelve sports. There are nine men's and nine women's teams. Many of the teams have earned championship titles and several former student-athletes have gone on to careers in professional sports.

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Areas of Study by Division

# AREAS OF STUDY BY DIVSION 

APPLIED TECHNOLOGY
DIVISION
Administration of Justice
Aerospace Studies
Air Conditioning
Applied Technology
Apprenticeship Training
Automotive/Heavy-Duty Electrical
Automotive Mechanics
Body and Fender
Cook
Diesel and Heavy-Duty Mechanics
Electronics
Machine Shop
Painting and Decorating
Parts clerk
Roofing
Stationary Engineers
Welding
Architecture
Automotive Collision Repair Technology
Automotive Technology
Auto Tech: GMASEP
Building Safety and Code Administration
Cabinetmaking Technology
Computer Aided Drafting and Design
Computer Aided Manufacturing
Construction (Carpentry)
Drafting
Electrical Systems Technology Cisco Networking/Computer Technician
Environmental Technology
Fire Technology Basic Academy
Graphic Communications Graphic Design Option
Industrial Arts and Technology
Industrial Technology
Construction Option
Manufacturing Option
Military Science
Photography
Police Academy
Basic Academy
Advanced Officer Academy
Supervisory Academy
Peace Officer Orientation
Basic Correctional Academy
Community Service Officer

Basic Reserve Academy
Welding Technology
Metal Fabrication Option
Pipe and Structural Option
Career \& Technology Center
Auto Collision Repair and Paint
Refinishing
Brakes/Suspension
Building Maintenance
Engine Performance
Engine Repair
Industrial Training
Maintenance Mechanic
BUSI NESS DIVISION
Account Clerk
Accounting
Business Administration
Business Management
Business \& Technology
Administrative Assistant Emphasis
Clerical Emphasis
Legal Administrative Assistant Emphasis
Medical Administrative Assistant Emphasis
Medical Billing Clerk Emphasis
Medical Receptionist Emphasis
Medical Transcriptionist Emphasis
Office Professional Emphasis
Word Processor Emphasis
Clerical Training (CTC)
Computerized Accounting
General Office Techniques
Office Assistant
Data Entry Operator
Decision Science
eCommerce
Fashion Merchandising (Marketing)
Information Systems
Computer Information Systems
Data Entry Operator
MCSE Networking
Microcomputer Software Specialist
Networking/Computer Technician
Webmaster
Marketing
Call Center Telemarketing
Customer Relations Specialist
Paralegal
Purchasing
Real Estate
Broker/Sales Option

Escrow Option
Housing Management Option
HEALTH SCI ENCES DIVISION
Dental Hygiene
Health Information Technician
Health Science
Medical Assistant-Clinician
Nursing, Registered
Physical Education
Radiologic Technology
Recreation
Recreation Leadership
Respiratory Care
Surgical Technology
HUMANITIES DIVISI ON
Art
Dance
English
English as a Second Language (ESL)
Film
Foreign Languages
American Sign Language
Armenian
Chinese
French
German
Hmong
Japanese
Russian
Spanish
Swahili
Humanities
Journalism
Linguistics
Music
Philosophy
Speech Communication
Theatre Arts
MATHEMATICS, SCI ENCE, AND
ENGI NEERING DIVISION
Astronomy
Biology
Biotechnology
Chemistry
Computer Science
Engineering
Environmental Studies
Geography, Physical
Geology
Mathematics
Physical Science
Physics

SOCIAL SCI ENCE DIVISION
African-American Studies
Alcoholism Counseling
American Indian Studies
American Studies
Anthropology
Asian-American Studies
Chicano-Latino Studies
Child Development
Criminology
Criminology/Pre-Academy Training
Criminology/Law Enforcement
Criminology/Correctional Science
Cultural Studies
Dietetic Service Supervision
Economics
Education
Educational Aide
Family Child Care
Fashion Merchandising (Home
Economics)
Food and Nutrition
Food Services Management
Foster Care
Geography, Cultural/World Regional
History
Home Economics/Consumer Education
Human Services
Alcoholism/Drug Abuse Counseling
Social Work
Liberal Arts
Liberal Studies
Political Science
Psychology
Sociology
Women's Studies
OTHER
General Work Experience
Developmental Education Program
Developmental Services
Guidance Studies
Honors Studies
Individual Study
Laboratory Assistant
Library Skills
Library Technology
Special Studies
Supervised Tutoring
Work Assessment Vocational
Education (WAIE)

## Associate Degree and Certificate Programs



Associate Degree and Certificate Programs

|  |  | AA | AS | CA | CC | Catalog Page |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Career \& Technology Center, Automotive Mechanics |  |  |  | - | 73 |
|  | Career \& Technology Center, Building Maintenance |  |  |  | - | 73 |
|  | Career \& Technology Center, Clerical Training |  |  |  | - | 99 |
|  | Career \& Technology Center, Industrial Training |  |  |  | - | 73 |
|  | Career \& Technology Center, Maintenance Mechanic |  |  |  | - | 73 |
|  | Chicano-Latino Studies | - |  |  |  | 100 |
|  | Child Development |  | - | - |  | 101 |
|  | Child Development Associate Teacher Program |  |  |  | - | 102 |
|  | Child Development, Family Child Care |  |  |  | - | 102 |
|  | Child Development, Foster Care |  |  |  | - | 102 |
|  | Computer Aided Drafting and Design |  | - | - |  | 103 |
|  | Computer Aided Manufacturing |  | - |  | - | 104 |
|  | Computer Science |  | - |  |  | 79 |
|  | Construction |  | - | - |  | 104 |
|  | Criminology, Correctional Science Option |  | - | - | - | 105 |
|  | Criminology, Criminology Option |  | - | - |  | 106 |
|  | Criminology, Law Enforcement Option |  | - | - |  | 106 |
|  | Criminology, Pre-Academy Training Option |  |  | - |  | 107 |
|  | Dance | - |  |  |  | 107 |
|  | Dental Hygiene |  | - |  |  | 107 |
|  | Educational Aide, Special Education |  |  |  | - | 137 |
|  | Electrical Systems Technology, Cisco Certification |  |  |  | - | 109 |
|  | Electrical Systems Technology, Cisco CCNP Preparation |  |  |  | - | 109 |
|  | Electrical Systems Technology, Networking/ Computer Technician |  | - | - |  | 110 |
|  | Electrical Systems Technology, Industrial Control Systems |  |  |  | - | 109 |
|  | Engineering |  | - |  |  | 110 |
|  | English | - |  |  |  | 111 |
|  | Environmental Technology |  | - | - |  | 111 |
|  | Fashion Merchandising (Home Economics/ Marketing) |  | - | - |  | 112 |
|  | Fashion Merchandising (Marketing/ Home Economics) |  | - | - |  | 112 |
|  | Fire Technology |  | - | - | - | 113 |
|  | Fire Technology, Basic Fire Academy |  |  |  | - | 71 |
|  | Fire Technology, Emergency Medical Technician 1 |  |  |  | - | 71 |
|  | Fire Technology, Emergency Medical Technician 1 Refresher |  |  |  | - | 71 |
|  | Food and Nutrition |  | - | - |  | 113 |
|  | Food and Nutrition, Dietary Aide |  |  |  | - | 114 |
|  | Food and Nutrition, Dietetic Service Supervisor |  |  | - |  | 114 |
|  | Food Service Management |  | - | - |  | 115 |
|  | Food Service Management, Child Nutrition |  |  | - |  | 115 |
|  | Graphic Communications |  | - | - |  | 115 |
|  | Graphic Communications, Graphic Design Option | - |  |  |  | 116 |
|  | Graphic Communications, Web Design |  |  |  | - | 116 |
|  | Health Information Technology |  | - |  |  | 116 |
|  | Home Economics, Consumer Education |  | - | - |  | 117 |
|  | Human Services, Alcoholism and Drug Abuse Counseling Option |  | - | - | - | 118 |
|  | Human Services, Social Work Option |  | - | - |  | 118 |
|  | Humanities | - |  |  |  | 119 |
|  | Industrial Arts and Technology |  | - |  |  | 119 |
|  | Industrial Technology, Construction Option (Transfer to CSUF) |  | - |  |  | 120 |
|  | Industrial Technology, Manufacturing Option (Transfer to CSUF) |  | - |  |  | 120 |
|  | Information Systems, Computer Information Systems |  | - |  |  | 121 |
| AA Associate in Arts | Information Systems, Data Entry Operator |  |  | - |  | 121 |
|  | Information Systems, Microcomputer Software Specialist |  | - | - |  | 122 |
| AS Associate in | Information Systems, Microsoft Access 2000 |  |  |  | - | 122 |
| AS Associate in | Information Systems, Microsoft Excel 2000 |  |  |  | - | 122 |
| Science | Information Systems, Microsoft Office 2000 |  |  |  | - | 122 |
|  | Information Systems, Networking/Computer Technician |  | - | - |  | 122 |
| CA Certificate of | Information Systems, Systems Support Specialist |  |  |  | - | 123 |
| CA Cerificate of | Information Systems, Web Page Development |  |  |  | - | 123 |
| Achievement | Information Systems, Webmaster |  | - | - |  | 123 |
| CC Certificate of Completion |  |  |  |  |  |  |


|  | AA | AS | CA | CC | Catalog Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| J ournalism |  | - | - |  | 124 |
| Liberal Studies | - |  |  |  | 124 |
| Library Technology |  | - | - |  | 125 |
| Life Science |  | - |  |  | 79 |
| Marketing |  | - | - |  | 125 |
| Marketing, Call Center Telemarketing |  |  | - |  | 126 |
| Marketing, Customer Relations Specialist |  |  | - |  | 126 |
| Mathematics |  | - |  |  | 126 |
| Medical Assistant, Clinician |  | - |  |  | 127 |
| Music, Commercial Music |  | - | - |  | 128 |
| Music, Guitar | - |  |  |  | 127 |
| Music, Instrumental | - |  |  |  | 127 |
| Music, Piano | - |  |  |  | 127 |
| Music, Vocal | - |  |  |  | 127 |
| Nursing, Registered |  | - |  |  | 128 |
| Paralegal |  | - | - |  | 130 |
| Paralegal, Legal Assistant-Clerk |  |  |  | - | 130 |
| Photography |  | - | - |  | 131 |
| Physical Science |  | - |  |  | 79 |
| Radiologic Technology |  | - |  |  | 131 |
| Real Estate, Broker/ Sales Option |  | - | - |  | 133 |
| Real Estate, Escrow Option |  | - | - |  | 133 |
| Real Estate, Housing Management Option |  | - | - |  | 133 |
| Recreation Leadership | - |  |  |  | 133 |
| Respiratory Care Practitioner |  | - |  |  | 133 |
| School to Work |  |  |  | - | 135 |
| Social Science | - |  |  |  | 135 |
| Spanish | - |  |  |  | 135 |
| Speech Communication | - |  |  |  | 135 |
| Surgical Technology |  | - | - |  | 136 |
| Teacher Aide, General |  | - | - | - | 136 |
| Theatre Arts | - |  |  |  | 138 |
| Theatre Arts, Design Technical Theatre Studies |  | - |  |  | 138 |
| Theatre Arts, Performance Studies |  | - |  |  | 138 |
| Welding Technology, Metal Fabrication Option |  | - | - |  | 139 |
| Welding Technology, Pipe and Structural Steel Certification Option |  | - | - |  | 139 |
| Women's Studies | - |  |  |  | 139 |
| WorkAbility Vocational Education (WAVE) |  |  |  | - | 139 |

AA Associate in Arts
AS Associate in Science

CA Certificate of Achievement

CC Certificate of Completion

# FRESNO CITY COLUEGE MAJORS 

Adiverse offering of major and transfer majors are available at Fresno City College. Two-year associate in arts (A) and associate in science (AS) degree programs, plus certificate of achievement (CA) and certificate of completion (CC) programs are listed here. Many of the programs listed are transer programs as well as two-year programs.

2010 Accounting (AS/CA)
2400 Account Clerk (CA)
1060 Adaptive Ornamental Horticulture (CC)
ADMI NISTRATION OF J USTICE
8941 Adult Correctional Officer Core (CC)
8920 Basic Police Academy (CC)
8921 Basic Reserve Academy (CC)
8924 Basic Supervisors (CC)
8930 Community Service Officer (CC)
8943 Juvenile Correctional Officer Core (CC)
8922 Police Cadet Training (CC)
8942 Probation Core Course (CC)
8925 Requalification- Basic Course (CC)
8970 Safety Dispatcher's Basic Course (CC)
7640 African-American Studies (AA)
AGRICULTURE SCI ENCE
102 T Agri-Business (T)
120T Agricultural Engineering Technology (T)
105 T Animal Science - Production Emphasis (T)
121 T Mechanized Agriculture - Production Emphasis (T)
125 T Plant Science-Production Emphasis (T)
126T Plant Science - Science Emphasis (T)
8030 Air Conditioning (AS/CA/CC)
7680 American Indian Studies (AA)
7100 Anthropology (AA)
710 T Anthropology (T)
7120 Archaeological Technician (CA)
6810 Architecture (AS/CA)
681T Architecture (Pre-Architecture Transfer)
ART
520T Art(T)
5202 Art/Three Dimensional (AN/CA)
5201 Art/Two-Dimensional (AA/CA)
631T Astronomy (T)
AUTOMOTIVE
8071 Automotive Collision Repair Technology (AS/CA)
8051 Automotive Technology (AS/CA/CC)
805G Automotive Technology: GMASEP (AS)
7670 Bilingual/Bicultural Classroom Aide (AS) (Nontransfer)
7690 Bilingual/Cross Cultural (AA)
610 T Biological Studies (T)
6081 Biotechnology (AS/CA)
611 T Botany (T)
8220 Building Safety and Code Administration (AS/CA/CC)

AA = Associate in Arts Degree
AS = Associate in Science Degree

BUSI NESS ADMI NISTRATION
2050 Business Administration (AA)
205 T Business Administration (T)
2041 Entrepreneurial Ventures (CC)
2401 Retail Management (AS/CA)
BUSI NESS MANAGEMENT
2271 Businesss Finance and Investment (CC)
2181 Business Management (AS/CA)
2510 Human Relations \& Communications (CC)
2520 Human Resources \& Relations (CC)
2182 Management \& Supervision (CC)
2030 Small Business Management (CC)
BUSI NESS \& TECHNOLOGY
2212 Administrative Assist. Emphasis (AS/CA/CC)
2201 Business Office Assistant (CC)
2061 Clerical Emphasis (AS/CA/CC)
2202 Computer Applications Software (CC)
2102 Legal Administrative Assistant Emphasis (AS/CACC)
2381 Medical Administrative Assistant Emphasis (AS/CA/CC)
2242 Medical Billing Assistant (CC)
2421 Medical Billing Clerk (AS/CA/CC)
2241 Medical Receptionist Emphasis (AS/CACC)
2371 Medical Transcriptionist (AS/CA/CC)
2323 Microsoft Word (CC)
2213 Office Professional Emphasis (AS/CACC)
2322 Word Processor Emphasis (AS/CA/CC)
8311 Cabinetmaking Technology (AS/CA)
632 T Chemistry (T)
7661 Chicano-Latino Studies (AA)
CHILD DEVELOPMENT
5615 Child Development (AS/CA)
561T Child Development (T)
5614 Child Development Assoc Teacher (CC)
5570 Family Day Care (CC)
5580 Foster Care (CC)
546T Communicative Disorders (T)
3051 Computer Aided Drafting and Design (AS/CA)
8271 Computer Aided Manufacturing (AS/CA)
6920 Computer Science (AS)
692 Computer Science (T)
2401 Computerized Accounting (CC)
8091 Construction (AS/CA)
CRIMI NOLOGY
7700 Criminology (AS/CA)
770T Criminology (T)
7731 Criminology/Correctional Science (AS/CA)
CC)
$C A=$ Certificate of Achievement $\quad C=$ Certificate of Completion

7730 Criminology/Corrections (CC)
8872 Criminology/Law Enforcement (AS/CA)
8923 Criminology/Pre-Academy Training (CA)
5390 Dance (AA)
539T Dance (T)
4580 Dental Hygiene (AS)
682T Dentistry (Pre-Dentistry Transfer)
ELECTRICAL SYSTEMS TECHNOLOGY
8171 Electrical Systems Technology (AS/CA)
8172 Networking/Computer Technician (AS/CA)
8173 Industrial Control Systems (CC)
8174 Cisco Certification (CC)
8165 Cisco CCNP Preparation (CC)
720 T Economics (T)
3010 Engineering (AS)
301T Engineering (Pre-Engineering Transfer)
5301 English (AA)
530T English/Literature (T)
8151 Environmental Technology (AS/CA)
FASHION MERCHANDISING
2150 Marketing/Home Economics - Business Division (AS/CA)
2390 Home Economics/Marketing - Social Science Division (AS/CA)
FIRE TECHNOLOGY
883A Fire Technology (AS/CA)
883B Fire Technology/Basic Fire Academy (CC)
8840 Emergency Medical Technician I (CC)
8841 Emergency Medical Technician I Refresher (CC)
FOOD SERVICES
5692 Child Nutrition (CA)
5750 Dietary Aide (CC)
5680 Dietetic Services (ANCA)
568 T Dietetic Services (T)
5681 Dietetic Services Supervisor (CA)
5682 Food and Nutrition (AS/CA)
577T Food Science/General (T)
578T Food Science/Sport Nutrition (T)
5691 Food Service Management (AS/CA)
FOREI GN LANGUAGE
552T French (T)
553T German (T)
554T Russian (T)
5511 Spanish (AA)
551T Spanish (T)
683T Forestry (Pre-Forestry Transfer)
2012 Full Charge Bookkeeper (CC)
$\mathrm{T}=$ Transfer only

## AND TRANSFER MAJORS WITHCODES

If the area of study is one of the transfer programs designated by the suffix "T," Fresno City College transcripts will reflect Associate in Arts with a major in Liberal Arts degree, Questions regarding the transfer status of any degree program should be directed to a counselor.

5050 GENERAL STUDI ES/ NONTRANSFER
(AA)
730T Geography (T)
640T Geology/Earth Science (T)
GRAPHIC COMMUNICATIONS
8332 Graphic Communications (AS/CA)
8501 Graphic Design Option (AA/CA)
8502 Web Design (CC)
4621 Health Information Technology (AS)
450T Health Science (T)
$740 T$ History/Political Science (T)
560T Home Economics (T)
5640 Home Economics/Consumer Education (AS/CA)
HUMAN SERVICES
7951 Alcoholism \& Drug Abuse Counseling (AS/CA/CC)
7632 Human Services Community Employment Specialist (CA)
7631 Human Services Social Work (AS/CA)
5330 Humanities (AA)
533T Humanities (T)
8991 Industrial Arts \& Technology (AS)
I NDUSTRIAL TECHNOLOGY
899T Industrial Arts (T)
8240 Industrial Technology/Construction Option (AS)
824T Industrial Technology/Constr: Option (T)
8260 Industrial Technology/Manufacturing Option (AS)
826T Industrial Technology/Manufacturing Option (T)
828T Industrial Technology/Interior Design (T)
I NFORMATIONS SYSTEMS
2081 Computer Information Systems (AS)
2083 Data Entry Operator (CC)
260 T Information Systems \& Decision Science (T)
2086 Microcomputer Software Specialist (AS/CA)
2433 Mircosoft Access Option (CC)
2434 Mircosoft Excel Option (CC)
2432 Mircosoft Office 2000 Option (CC)
2430 Networking/Computer Technician (AS/CA)
2435 Systems Support Specialist (CC)
2431 Web Page Development Option (CC)
2083 Webmaster (AS/CA)
5350 Journalism (AS/CA)
535T Journalism (T)

786 T Law (Pre Law Transfer)
5100 Liberal Arts (AA)
510T Liberal Arts (T)
769T Liberal Studies/Bilingual Teaching (T)
5890 Liberal Studies (AA)
589T Liberal Studies/Teaching Credential (T)
5171 Library Technology (AS/CA)
6080 Life Science (AS)
608T Life Science (T)
536T Linguistics (T)
8270 Manufacturing Technology (AS/CA)
MARKETING
2612 Customer Relations Specialist (CA)
2110 Marketing (AS/CA)
620T Mathematics (T)
2120 Medical Assistant- Clinician (AS)
455T Medical Laboratory Technician (T)
684 T Medicine (Pre-Medicine Transfer)
MUSIC
580 T Music (T)
5850 Music/Commercial (AS/CA)
5830 Music/Guitar (AA)
5810 Music/Instrumental (AA)
5840 Music/Piano (AA)
5820 Music/Vocal (AA)
683T Natural Resources (T)
NURSI NG
4520 Nursing/Registered (RN) (AS)
451T Nursing (Pre-Nursing Transfer)
614T Oceanography (T)
685T Optometry (Pre-Optometry Transfer)
2550 Paralegal (AS/CA)
686T Pharmacy (Pre-Pharmacy Transfer)
570T Philosophy (T)
5220 Photography (AS/CA)
420T Physical Education (T)
6300 Physical Science (AS)
630 T Physical Science (T)
463T Physical Therapy (Pre-Physical Therapy Transfer)
633T Physics (T)
$745 T$ Political Science (T)
217T Public Administration (T)
750T Psychology (T)

4570 Radiologic Technology (AS)
REAL ESTATE
2190 Broker/Sales Option (AS/CA)
2310 Escrow Option (AS/CA)
2340 Housing Management Option (AS/CA)
430T Recreation Administration (T)
4300 Recreation Leadership (AA)
4610 Respiratory Care (AS)
7001 School to Work (CC)
7410 Social Science (AA)
741 T Social Science ( T )
799T Social Work (T)
760T Sociology (T)
5430 Speech Communication(AA)
538 T Speech Communication (T)
2182 Supervision and Management (CC)
306T Surveying \& Photogrammetry (T)
TEACHING
5910 Teacher Aide (AS/CA)
5970 Teacher Aide/General (CC)
5981 Education Aide/Special Education (CC)
769T Teaching, Bilingual (Pre-Teaching Transfer)
592T Teaching, Elementary and Early Childhood (Pre Teaching Transfer)
589T Teaching, Liberal Studies (Pre Teaching Transfer)
593T Teaching, Secondary (Pre Teaching Transfer)
541 T Telecommunications ( T )
THEATRE ARTS
5481 Design Technical Theatre Studies (AS)
5440 Theatre Arts (AA)
544 Theatre Arts/Drama (T)
787T Theology (Pre Theology Transfer)
689T Veterinary (Pre Veterinary Transfer)
WELDI NG TECHNOLOGY
8371 Metal Fabrication Option (AS/CA)
8372 Pipe and Structural Steel Certific. Option (AS/CA)
612T Wildlife Management (T)
7610 Women's Studies (AA)
761T Women's Studies (T)
7000 WorkAbility Vocational Education (CC)
613T Zoology (T)

If undecided on a major or if major is not listed, choose from:
505 General Studies/Nontransfer (AA) or
510 T Liberal Arts (T)

## DIVSIONS

## Applied Technology Division

The Applied Technology Division provides experiences which serve to guide students in their transition from the classroom to employment, employment upgrade and transfer to other education institutions.

Counselors and educational advisors are available to assist students in planning specific courses of study. To ensure that courses are in keeping with current occupation and industrial practices and requirements, joint management and employee advisory committees are set up in each occupation in which courses are offered.

Major fields of study offered by this division include air conditioning, architectural drafting, automotive collision repair technology, automotive technology, building safety and code administration, cabinetmaking


The Applied Technology Division offers practical hands-on educational programs to help students enter the workforce.
technology, Cisco, computer aided drafting and design, computer aided manufacturing, construction, electrical systems, environmental technology, fire technology, graphic communications, networking/computer technician, photography, and welding/metal fabrication.
Transfer college programs in architecture and industrial technology are available. Apprenticeship training and trade extension classes, in addition to other fields of study offered by the Applied Technology Division, are also available in the evening programs.
Information concerning the classification of courses and other data concerning the division follows:

## Associate in Science Degree

Generally, the two-year program leading to the associate in science degree provides the specialized skills and related information necessary to enable the graduate to find employment and to advance in his/her chosen field. Trade preparatory majors in the Applied Technology Division must complete the specified courses as outlined for each program.
Courses required for each degree program are generally offered each semester but are subject to cancellation or change. Students are advised to seek assistance from their counselors and/or faculty advisors in planning their programs.

Associate in science degree requirements can be found under degree requirements on page 28.

## Certificate of Achievement

A certificate of achievement will be awarded to students who have completed the designated subjects in the program major.

Courses required for each certificate program are generally offered each semester but are subject to cancellation or change. Students are advised to seek assistance from
their counselors and/or faculty advisors in planning their certificate program.
Apprenticeship programs included in this section meet state mandated supplemental requirements for indentured apprentices. Upon completion of an apprenticeship program, a certificate of achievement will be awarded. The certificate of achievement programs may also be used as a major to meet the associate in science degree requirement.

## Certificate of Completion

The certificate of completion will be awarded to students successfully completing the following course(s) or training program with a minimum " C " grade.

## Administration of Justice

1. Basic Police Academy (AJ 270) (Major \#8920)
2. Basic Reserve Academy (AJ 271, AJ 272, AJ 273, and AJ 274), 30 units (Major \#8921)
3. Police Cadet Training (AJ 260 and AJ 261), 12 units. Administered through the SCCCD Police Department. For information, call 442-8201. (Major \#8922)
4. Community Service Officer (AJ 277) (Major \#8930)
5. Basic Supervisors (AJ 276) (Major \# 0924 )
6. Adult Correctional Officer Core (AJ 280) (Major \#8941)
7. Probation Core Course (AJ 285) (Major \#8942)
8. Juvenile Correctional Officer Core (AJ 286) (Major \#8943)
9. Requalification- Basic Course (AJ 219) (Major \#8925)
10. Public Safety Dispatchers' Course (AJ 278) (Major \#8970)
Air Conditioning (Major \#8030)
AC 60A, 260B, 260C, 260D
Apprenticeship
11. Body and Fender (Major \#9080)
12. Cook (Major \#9085)
13. Diesel and Heavy-Duty Mechanic (Major \#9100)
14. Machine Shop (Major \#9200)
15. Partsclerk (Major \#9260)
16. Roofing (Major \#9300)
17. Welding (Major \#9380)

Automotive Technology (Major \#8051)
Completion of any 4 of the following courses: AUTOT 261, 281AB, 282AB, 283AB, 284

Building Safety and Code Administration
(Major \#8220)
BSCA 10, 12, 14, 20 and completion of any two of the following courses: BSCA 15, 16, 17, 22, 24
Electrical Systems Technology

1. Cisco Certification (EST 61, 62, 63, 64) (Major \#8174)
2. Cisco CCNP Preparation (EST 65, 66, 67, 68) (Major \#8165)
3. Industrial Control Systems (AT10, EST 72, EST 73)
(Major \#8173)

## Fire Technology

1. Basic Fire Academy (FIRET 130) (Major \#883B)
2. Emergency Medical Technician 1 (FIRET 131) (Major \#8840)
3. Emergency Medical Technician 1 Refresher (FIRET 261) (Major \#8841)

## Graphic Communications

Web Design (GRC 15, 16, 24, 25, 26) (Major \#8502)

## Work Experience Education

Through the cooperation of Fresno City College, industry and the community, students may work toward graduation while employed in trade, industrial or diversified occupations.
These courses are numbered 19. College credit is granted for the work. Inquire through your instructor or see a counselor.

## Apprenticeship Programs/ Courses

Apprenticeship classes and programs are organized in cooperation with the joint apprenticeship committee of the respective craft for training of apprentices approved by the State of California, Division of Apprenticeship Standards. Specific apprenticeship program requirements are outlined in the associate degree and certificate programs section.

## Admission to the Academy Programs

Admission of students into Fresno City College Peace Officer's and Fire Technology Academy programs is in accordance with the "Admission of Students" from the Fresno City College catalog, page 8, with the following exceptions:

1. Basic Police Academy: Students must successfully complete the POST standardized Reading Comprehension and Writing Skills test and the POST Physical

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Agility Test, or be sponsored by a law enforcement agency. Amedical exam and criminal history check are mandatory. (Requires special counseling.)
2. Advanced Officer Courses: Students must have completed Administration of Justice 270 or be sworn full-time peace officers.
3. Basic Supervisory Course: Students must satisfactorily substantiate that they are currently serving in a supervisory capacity within a criminal justice agency or will be within a one-year period.
4. Basic Reserve Police Academy, P.C. 832: Students must be able to demonstrate physical ability to use a firearm and to perform arrest and control techniques with safety. Student must obtain a Department of Justice clearance for firearms possession prior to the firearms portion of this class.
5. Basic Fire Academy: Medical exam conducted by a California licensed physician, including resting EKG \& physician's written explanation of EKG printout. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.
6. Fire Instructor IB: Completion of Fire Instructor IA.

Note: All academy units will be counted as elective credit unless otherwise designated.


Located off-campus, the Career and Technology Center houses the college's Fire Academy.

The nonaffiliated student attending basic peace officer's academies will be responsible for providing the following items (for his/her own use): California Penal Code and Vehicle Code, an approved firearm, ammunition and leather gear, notebook, paper, pens, pencils, uniform, physical training shorts, tee-shirts, tennis shoes, white socks, sweatshirt, sweatpants, black socks, black shoes, and lunches. All Basic Police Academy students will also be responsible for payment of range fees.
Basic Academy \$85.00*
P.C. 832 ...................................................... \$35.00*

Basic Reserve Level I................................ \$28.00*
Basic Reserve Level II \$32.00*
All courses conducted through the Police Academy Program have in-class registration.
*Range fees are subject to change.

## Career and Technology Center

Located off Fresno City College's main campus, the Career \& Technology Center offers a learning environment for practical hands-on education. Year-round registration is in effect for a variety of noncredit, open-entry classes. Counseling, child care and job placement services are available.

CTC is located at 2930 E. Annadale Avenue, Fresno. For a complete listing of classes, call (559) 486-0173.

## Courses and Programs

All classes run six hours a day, five days per week, for the number of weeks indicated. Enrollment is taken on an open entry basis, and class beginning and ending dates are calculated for each individual enrollee.

Students are required to pass the reading progress scale test at level 2 or above before being allowed to register.

A student may not register for a course subsequent to another course without having first successfully met the performance requirements of the former course.

Partial credit will not be given to students who do not complete a course/program.

## Satisfactory Progress Standards

## Satisfactory Progress

State Law requires students to maintain satisfactory progress while enrolled at a community college. Students who do not complete courses in which they enroll, will be penalized as follows:

## Placement on Progress Probation

A student who has missed thirty (30) accumulated hours of instruction, or fails to maintain a " C " average between monthly progress reports, will be put on progress probation.

## Removal from Progress Probation

A student put on progress probation because of excessive absence ( 30 accumulated hours) will remain on progress probation until completion of the program. Those students on academic probation (below a " C " average) shall be removed from progress probation if they improve their overall grade to a " C " average by the end of the next monthly report.

## Progress Dismissal

A student who has been placed on progress probation shall be subject to dismissal if:

1. His/her total accumulated absences total 90 hours; or
2. His/ her monthly grade remains below " $C$ " for two consecutive months.

## Readmission Following Progress Dismissal

A student who has been dismissed because of progress probation must petition for readmission.
Following the first dismissal, under District standards, a student will not be admitted to school until one cycle of the class has elapsed. If a student fails to complete the course following his/her initial dismissal, the student shall be dismissed for two cycles of the course. If he/ she fails to complete the course after the second dismissal, he/she shall be dismissed again. The third dismissal shall be considered permanent.
Veterans are required to complete the course/program for full benefit payment.
ACertificate of Completion will be awarded for successful completion of each of the following CTC programs with a minimum " C " grade.

| 1. Automotive Mechanics | Hours |
| :---: | :---: |
| Auto Mech 371, Engine Repair | 600 |
| Auto Mech 372, Engine Performance | 900 |
| Auto Mech 373, Brakes, Suspension \& Steering | 600 |
| 2. Body and Fender | Hours |
| Body and Fender 370, Automobile Repair and Paint Refinishing | 900 |
| 3. Building Maintenance | Hours |
| Building Maintenance | 600 |

4. Industrial Training

Hours
Careers ..... 200
5. Maintenance Mechanic ..... Hours
Maint Mech 370, Weld/Machine Shop ..... 900
Maint Mech 371, Hydraulic/Pneumatics ..... 900
Maint Mech 372, Electrical Fund ..... 900

## Business Division

The American economy offers ever-increasing opportunities in business careers and Fresno City College provides training in a variety of business fields. The suggested courses of study prepare the student for immediate employment in business.

## Training Programs

The Business Division is equipped to offer the following

## preparations:

1. Career training and retraining.
2. Lower division courses for students planning to transfer to four-year colleges and universities.
3. Short, intensive programs for those who wish to spe cialize in one area with immediate employment in mind.
4. Electives for students in other divisions.

The regular two-year program with a transfer objective leads to the associate in arts degree. Occupational competency, on the other hand, demands in-depth concentration over a like period culminating in an associate in science degree. A certificate of achievement is available in all programs for those who meet the necessary requirements.

## Realistic Training

Effort is made to coordinate the school and the job by bringing to the classroom the latest information on business methods and employers' needs. Leaders from business speak to the students and counsel them both at school and at their offices concerning standards, work habits and attitudes.

## Employment Available

The job placement office is available to help business students secure part-time positions to help finance their education and full-time jobs for those completing their training. Automation has created a demand for better skills and students are encouraged to remain in the program of study until completion. The demand

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for well qualified employees continues to be greater than the supply.
Students planning to seek employment upon graduation from Fresno City College, as well as those who plan a short, intensive training period, will find the suggested curricula on the following pages a guide in planning their courses. Twenty-five majors are offered in the areas of accounting, business administration, business management, marketing, microcomputer software specialist, office occupations, paralegal and real estate.

## Basic Skills

Keyboarding is a "must" for the business student and is valuable also for students in other divisions. Knowledge of office machines - adding, calculating, dictating, transcribing, computers, electronic typewriters - is quite valuable and necessary for job entry. Word processing skills are required as is a basic understanding of computer information systems.

## Matching Training to Ability

Counselors and advisors assist students in making a wise choice of courses which prepare them for employment suited to their aptitudes and interests. Education for professional business careers in management and ownership challenge the most capable students.

Students planning to transfer and pursue a bachelor's degree program should check carefully the requirements of the specific majors in the catalog of the four-year college or university of their choice and consult with their counselors.

## Associate in Arts Degree

The associate in arts degree is offered primarily for transfer students in the area of business administration. Associate degree requirements are listed on page 28.

## Associate in Science Degree

The associate in science degree programs, as listed in the following pages, show the designated course requirements and the departmental recommendations for elective courses. These electives are supportive and carry a strong recommendation. Associate degree requirements are listed on page 28.

## Certificate of Achievement

A certificate of achievement in each program will be awarded to students who meet course requirements and who make application.

## Certificate of Completion

Acertificate of completion may be awarded by completion of a combination of courses listed below with a minimum " $C$ " average in each course.
Business \& Technology, Computer
Applications Software (Major \#2202)

| BT 7 | WordPerfect I |
| :--- | :--- |
| BT/IS 14 | Windows |
| BT/IS 18 | Beginning Lotus |
| BT/IS 25 | Microsoft Office |
| BT 122 | Skillbuilding |
| BT 250 or | Office Skills Lab |
| IS 260 | Computer Skills Lab |

Business Finance and Investment
(Major \#2271)

| BA30 | Personal Finance |
| :--- | :--- |
| BA34 | Investments |

Business Office Assistant (Major \#2201)
BT $1 \quad$ Beginning Typing

BT $2 \quad$ Word Processing I
BT $7 \quad$ Word Perfect I
BT $19 \quad$ Work Experience
BT 20 Resume/Interview
BT $21 \quad$ Working Relationships
BT $29 \quad$ Word for Windows II
BT $250 \quad$ Office Skills Lab
BT $270 \quad$ Business Math \& 10 Key
BT $271 \quad$ Business Grammar
Fundamentals
BT $272 \quad$ Office Procedures
BT 273 Filing
BT 274 Introduction to Outlook
BT 277 Accelerated Excel
Note: Sudents must demonstrate the ability to type 40 words per minute with $97 \%$ accuracy on three 5 -minute timed writings and 110 correct strokes per minute on the tenkey calculator.

Computerized Accounting (Major \#2401)
ACCTG $19 \quad$ Work Experience
ACCTG 34 Accounting Spreadsheets
ACCTG $55 \quad$ Accounting Methods
ACCTG $60 \quad$ Accounting Skills Lab
ACCTG 70 Accelerated QuickBooks
BT $1 \quad$ Beginning Typing
BT 4 Ten-Key Calculation
BT 20 Resume/Interview
BT $21 \quad$ Working Relationships
BT $28 \quad$ Microsoft Word I


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| Microsoft Access 2000 | ( Major \#2433) |
| :---: | :--- |
| IS 27 | Microsoft Access |
| IS 28 | Advanced Microsoft Access |
| Microsoft Excel 2000 | ( Major \#2434) |
| BT/IS18 | Spreadsheet Fundamentals |
| IS 20 | Intermediate Spreadsheets |
| IS21 | Advanced Spreadsheets |
| Microsoft Office 2000 ( Major \#2432) |  |
| BT/IS25 | Microsoft Office |
| IS 46 | Advanced Microsoft Office |

Microsoft Word (Major \#2323)
BT $28 \quad$ Microsoft Word I
BT $29 \quad$ Microsoft Word II
Small Business Management
( Major \#2030)
*BAMGMT 10 Introduction to Business
BA38

BA51 Survey of Entrepreneurship
ACCTG 4A Principles of Financial Accounting, or
BT $31 \quad$ Applied Accounting
*or equivalent
System Support Specialist (Major \#2435)
EST $60 \quad$ PC \& LANMaintenance
IS 17 Data Communications
IS 22 Computer Operating Systems
IS 231 Network+ Preparation
IS 238 At Systems Software
IS 239


The Heelth Sciences Division offers courses to fulfill requirements in a number of health care occupational programs.

Web Page Development (Major \#2431)

IS 23
IS 24
IS40

Web Page Development I
Web Page Development II Intemet Basics

## Co-Curricular Activities

As an integral part of the instructional program, the Business Division supports three co-curricular groups. The effort is represented by the Paralegal Student Organization (Paralegal majors), SIFE (Students In Free Enterprise), and Rotaract (Rotary Club for College Students). Members are enrolled in a Business Leadership class and service oriented activities are conducted that benefit both the college and community. Two student organizations designed to encourage sharing of common goals are the Paralegal Student Organization and the Computer Information Systems Student Organization.

These co-curricular activities provide a medium through which leadership qualities can be taught and the laboratory in which they can be tested, practiced and proven. Membership is open to students with an interest in the subject, and active participation is highly encouraged.

## Nontransfer Students

The suggested courses of study offered by the Business Division prepare the student for immediate employment in business.

## Health Sciences Division

The Health Sciences Division offers courses for fulfilling requirements in a number of occupational programs such as:
D Dental Hygiene
D Medical Assistant - Clinician
D Health Information Technology
D Radiologic Technology
D Registered Nursing

- Respiratory Care Practitioner

The Health Sciences Division also offers a variety of courses and programs in health science, physical education, recreation and recreation leadership. Such courses may be taken for general interest and/or degree requirements. The courses are listed elsewhere in this catalog.

## Health Care Career Programs

All students must complete the appropriate Academic Summary Form for consideration for acceptance into a health care career program. Students must also meet
the normal admission requirements as fully matriculated regular students at Fresno City College. See page 10 for a list of these requirements.

For impacted programs ( programs having more applicants than seats available), applicants will be required to have all their application requirements completed before their names can be submitted for lottery selection. Those interested in entering one of these programs are urged to obtain information from a health career counselor so that they might make a more realistic evaluation of their chances for being accepted. Students must meet specific prerequisites for the program of their choice.

Upon entry to the Dental Hygiene, Radiologic Technology, Registered Nursing, Respiratory Care Practitioner, Health Information Technology and Medical Assistant - Clinician programs, students will be required to carry liability insurance.

Due to changes expected from the state, students will be considered for entry into a health care career program under the requirements listed in the current catalog or catalog supplement. Although the catalog is a twoyear catalog, a catalog supplement is published each year. It is important that students understand that the college will use the criteria for program eligibility based on the catalog or the catalog supplement in effect at the time of submission of the Academic Summary Form, not the initial registration at Fresno City College.

See academic requirements under the appropriate health career program in the college catalog and/or catalog supplement. Additional information may be obtained by contacting a Fresno City College health career counselor. To keep current on changes, students are expected to contact a health career counselor on a regular basis or to attend the health science orientation each semester.

## Humanities Division

The Humanities Division offers courses to improve basic skills in writing and reading; courses that meet general education requirements; and courses of study to complete the associate degree and lower division transfer requirements.

An integrated program of study in the humanities provides students with a foundation in the liberal arts that prepares them for further study in many different disciplines. The varied courses in the division examine the breadth of human experience through the study, analysis, and discussion of art, music, theatre, literature,
foreign languages, and philosophy in their cultural and historical context.

## Fine and Performing Arts

Students have the opportunity to complete lower division requirements for transfer in art, music, theatre arts, and dance. In addition to an examination of the creative process and an introduction to theoretical models, students are able to participate in several venues that spotlight student work.
Art Space Gallery
Ajuried exhibition of student work is held and prizes are awarded during the spring semester.
Music
Students have several options to participate in performance groups, including the Fresno City College Jazz Band, Concert Band, City Singers, and College Choir.

## Dance

Original works by students and faculty are staged twice during the academic year. Students may also be invited to participate in the American College Dance Festival during the spring semester.

## Theatre Arts

Students gain valuable experience in all facets of production by participating in the staging of four productions


Students have several options to participate in performance groups, including City Singers, a very talented choir group.

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during the year. During the spring semester the department hosts the High School Drama Festival. Students may also have an opportunity to attend the American College Theatre Festival during the spring semester.

## Letters

In addition to meeting the general education requirements, courses in the Letters Department are designed to fulfill the requirements for the major in English or humanities. They provide students with the skills necessary to analyze and research great works of literature, philosophy, and the fine arts. The department also publishes the City Essayist, a collection of the best student writing submitted during the year.

## Communication Arts

The Communication Arts Department offers courses in film, speech, and journalism. Students may select courses to fulfill general education requirements and courses for majors in speech and journalism. Students enrolled in the journalism program have the opportunity to gain valuable experience in the production of the college newspaper, The Rampage.
The Forensic program at Fresno City College has long been recognized as one of the most outstanding programs among community colleges in both the state and the nation. Students in the program compete in several tournaments during the academic year, which lead to competition in the state and national tournaments for invited students.
All students enrolled in speech classes have the opportunity to participate in an intramural competition held during Showcase, the Fresno City College open house in the spring.


The college's pond is home to several varieties of life which science students study regularly.

## Foreign Languages

In a global economy and an increasingly more international community, knowledge of other languages has come to be viewed as a definite advantage. The Humanities Division offers courses in languages as diverse as Armenian and Swahili. The emphasis is on communicative competence and students learn the necessary skills which will allow them to communicate in different situations in the target language. For a complete listing of foreign language courses offered, please see page 207.

## Basic Skills

For students needing to develop their reading, writing, and study skills, the division offers a sequenced program of study designed to enhance student success. Students whose native language is not English have the opportunity to develop their reading, writing, listening, and speaking skills in English by enrolling in an integrated program of study specifically designed to meet the needs of nonnative English speakers.

## Mathematics, Science and Engineering Division

The Mathematics, Science and Engineering Division offers courses for fulfilling requirements in its own programs as well as programs offered by other divisions. Many of the courses are for students in transfer programs. These include courses which fulfill lower division requirements for majors as well as courses taken for general education. The offering prepares students for continued study at four-year colleges and universities. Pre-professional lower division curricula are available with majors in such fields as biology, chemistry, dentistry, engineering, forestry, geology, mathematics, nursing, medicine, optometry, veterinary medicine, physics, pharmacy, and physical therapy.

Special classes in biology, chemistry and mathematics are offered for students who need to develop skills in these subjects before taking more advanced courses.

## Mathematics

Mathematics courses are provided for other divisions of the college as well as for the mathematics, science and engineering transfer student. Both preparatory and standard lower division courses in mathematics are offered. Opportunities are also provided for the student to improve deficiencies in mathematical skills. Effort is made to stimulate mathematical thinking.

## Science

Civilization has its foundations in the natural sciences. An understanding of life requires a knowledge of the underlying principles of science. A wide selection of courses are offered which provide students with useful knowledge of the part science plays in their lives.
The life sciences are presented by courses designated biology. The physical sciences include astronomy, chemistry, physical geography, geology and physics.

## Engineering

Completion of the lower division engineering transfer program gives students upper division standing at accredited four-year colleges and universities. Students without the necessary background in certain basic high school subjects may make up this work at the college. Engineering majors should carefully study the cata$\log$ of the school to which they plan to transfer.

## Associate Degrees

The two-year associate degree programs in the Mathematics, Science and Engineering Division are principally transfer programs. Associate degrees are awarded to those who complete the graduation requirements listed on page 28. The specified field requirement for the associate in science degree with majors either in engineering, life science or physical science can be fulfilled by completing the following:
Engineering (Major \#3010)

1. Engineering: a minimum of nine units in subjects listed in the college catalog as Engineering.
2. At least two courses completed in each of the following areas:
a. Mathematics 5A, 5B, 6, 7;
b. Chemistry 1A, 1B, 8A;
c. Physics 4A, 4B, 4C.

## Life Science (Major \#6080)

Twenty or more units combined from the following subject areas:

1. Biological Science: 14 units minimum from courses listed in the college catalog under Biological Sciences.
2. Physical Science: 6 unitsmay be selected from Chemistry, Physics, and Earth Science (Physical Geography, Geology and Environmental Studies). The recommended sequence includes Biol 1, Biol 5, Biol 6, and Chem 1A, 1B.

## Computer Science (Major \#6920)

The computer science program at Fresno City College parallels the first two year's offering at CSU Fresno and is one which stresses mathematics and computer programming techniques. Students planning to major in computer science are advised to complete Computer Science 40 and 41, Programming Concepts \& Methodology I and II, along with Math 5 A and 5 B , which are the first two courses in calculus. Additional computer programming courses should be taken as necessary to expand the student's programming background.

## Physical Science (Major \#6300)

Twenty or more units from courses in astronomy, chemistry, geology, physical geography, mathematics and physics, with not more than eight units in mathematics applied. (Students who transfer to Fresno City College with courses in other physical sciences may substitute with permission.)

## Social Science Division

The aim of social science is to provide an appreciation of the rich diversity and the fundamental commonality of all human experience. The social sciences constitute studies in human behavior, both past and present, individual and collective, legal and illegal, distant and local. Their intent constitutes a search for greater social justice, personal freedom and mutual understanding.

The Social Science Division offers courses in Afri-can-American studies, American-Indian studies, American studies, anthropology, archaeology, Asian-American studies, Chicano-Latino studies, child development, criminology, economics, education, food and nutrition, cultural and world regional geography, human services, political science, psychology, sociology and women's studies to satisfy transfer and associate degree general education requirements (see pages 28 and 35).


The social sciences constitutestudies in human behavior, including child development.

The Social Science Division also offers career training in the following areas: archaeology, criminology, human services, (including social work, alcoholism counseling, child development, home economics/consumer education, police and law enforcement, correctional science and pre-academy training, teacher aide, dietary aide, dietetic service supervisor, food service management and child nutrition. These programs lead to a certificate of achievement or to an AA or AS degree.

## Career Training

Students may select a training program leading to a certificate of completion, a certificate of achievement or an associate in science degree. Certificate programs require occupational courses only and vary between 6 and 40 units of course work. The associate in science degree mandates a minimum of 60 units, consisting of the major, electives, and required courses in general education. The latter are listed on page 28. The major consists of the same occupational curricula as required for the certificates of achievement.

# DISTRICT COURSES AND PROGRAMS 

| Fresno City College is a sister institution of Reedley | - Criminology |
| :---: | :---: |
| College within the State Center Community College | - Cultural Studies |
| District, and students may register at either institution | - Dental Hygiene |
| or both institutions concurrently. As the registration | D Drafting |
| enrolling for courses at Fresno City College should contact | - Electrical Systems Technology |
| the Admissions Office on either campus for further in- | - Fire Technology |
| formation and direction. | - Graphic Communications |
| Each college of the District offers certain programs/ | D Library Skills |
| courses which are unique and not offered at the other | - Library Technology |
| campus. Following is a partial list of those programs/ | - Management |
| courses offered at Fresno City College that are not offered | - Marketing |
| on the Re | - Military Studies |
| - Administration of Justice | - Networking/Computer Technician |
| - Aerospace Studies | D Nursing: Registered |
| - African-American Studies | - Paralegal |
| Air Conditioning | - Police Academy |
| American Studies | Real Estate |
| American Indian Studies | D Radiologic Technology |
| - Applied Technology | D Respiratory Care |
| - Apprenticeship Programs | Surgical Technology |
| - Architecture | Surgical Technology |
| Asian-American Studies |  |
| - Automotive Collision Repair Technology |  |
| - Automotive Technology |  |
| General Motors ASEP |  |
| - Building Safety and Code Administration |  |
| - Business \& Technology |  |
| - Computer Aided Drafting and Design |  |
| - Construction |  |

## Career and Technology Center

Located off the main campus, the Fresno City College Career and Technology Center is a significant resource to both its students and the community. CTC staff identifies job skills employers in local industry need and then provides training to help students acquire those skills. Year-round registration is in effect.
Noncredit, open-entry classes are offered in:

- Auto Collision Repair

D Brakes/Suspension \& Steering

- Building Maintenance
- Engine Performance/Emission Control
- Engine Repair

D Industrial Services and Warehouse Technician
D Maintenance Mechanic
For additional information, write or call the center. 2930 East Annadale Avenue
Fresno, CA 93725
(559) 486-0173

## Reedley College

Additional programs/ courses available only at Reedley College in Reedley:

- Aeronautics
- Criminal Justice
- Dental Assisting

D L.A.N.D. Agri-Business
D General Agriculture
D Animal Science
D Plant Science: Grape and Tree Fruit Management
D Forest/ParkTechnology
D Landscape Horticulture
D Mechanized Agriculture
D Natural Resources
D Office Technology
Further information on these programs/courses can be obtained by writing or calling. Reedley College 995 North Reed Avenue
Reedley, CA 93654
(559) 638-3641

## Community Campus Program

The District's Community Campus Program provides fully accredited college courses at off-campus locations. Courses meet the graduation requirements for two-year degrees and are transferable to the California State University system.

All center offices are open from 6 p.m. to 8 p.m. on the days that evening classes are in session. (The Madera Center is open from 8 a.m. to 9 p.m. Monday through Thursday, and 8 a.m. to 5 p.m. Friday.)

For more information, please call the main Community Campus Office in Reedley at (559) 638-0306.

- Clovis Center 390 W. Fir Ave.
Clovis, CA
(559) 323-4595
- Easton Community Campus

Washington Union High School
Easton, CA
(559) 485-8805

- Kerman Community Campus

Kerman Junior High School
601 S. First
Kerman, CA
(559) 846-5380

- Madera Center

30277 Avenue 12
Madera, CA
(559) 675-4515

D Oakhurst Center 40241 Highway 41, Building Site G
Oakhurst, CA
(559) 683-3940

- Sanger Community Campus

Sanger High School
1705 10th Street
Sanger, CA
(559) 875-7121

- Selma Community Campus

Selma High School
3125 Wright Street
Selma, CA
(559) 896-6651

## ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS

| ACCOUNT CLERK - maj OR \#2400 |  |
| :---: | :---: |
| This curriculum is designed for entry-level employment as an account clerk where advanced accounting principles are not required. |  |
| CERTI FICATE OF | F ACHIEVEMENT |
| First Semester ACCTG 4A | Units <br> Principles of Financial Accounting <br> .................... 4 |
| BA 10 | Introduction to Business ............................... 3 |
| BT 1 | Beginning Typing ............................................. 3 |
| DS 17 | Business Math ........................................... 3 |
| IS 12 | Computer Literacy ........................................... 3 |
|  | Total 16 |
| Second Semest | ter Units |
| ACCTG 4B | Principles of Managerial Accounting ................ 4 |
| ACCTG 31 | Computerized Accounting .............................. 3 |
| BT 4 | Ten-Key Calculation ............. |
| BT 20 | Resume/Interview .......................................1.5 |
| BT 21 | Working Relationships...................................1.5 |
| BT 112 | Business English ........................................ 2 |
|  | Total 14 |
| ACCOUNTING - MAj OR \#2010 |  |
| This curriculum is designed for the student who desires a career and advancement in the field of accounting. |  |
| ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHI EVEMENT |  |
| FIRST YEAR |  |
| First Semester | Units |
| ACCTG 4A | Principles of Financial Accounting .................. 4 |
| BA 10 | Introduction to Business .............................. 3 |
| IS 15 | Computer Concepts ...................................... 3 |

Second Semester ..... Units
ACCTG 4B Principles of Managerial Accounting. .....  4
ACCTG 31 Computerized Accounting .....  3
ACCTG 53 Tax Accounting .....  3
SECOND YEAR
First Semester Units
ACCTG 54 Auditing .....  3
IS 18 Spreadsheet Fundamentals .....  1.5
IS 20 Intermediate Spreadsheets ..... 1.5
Total
Second Semester ..... Units
ACCTG 51 Intermediate Accounting .....  3
ACCTG 52 Cost Accounting .....  3
TotalRecommended Electives: ACCTG 19; BA 5, 16, 18, 21, 30, 33; BT 4,20, 21; IS 36; ECON 1A, 1BNote: Associate degree requirements are listed on page 28.
COMPUTERI ZED ACCOUNTI NG - MAJ OR \#2401
CERTIFICATE OF COMPLETION ..... UNITS
ACCTG 19 Work Experience .....  3
ACCTG 34 Accounting Spreadsheets .....  3
ACCTG 55 Accounting Methods. .....  1
ACCTG 60 Accounting Skills Lab .....  1
ACCTG 70 Accelerated QuickBooks .....  .1
BT 1 Beginning Typing ..... BT 20BT 2BT 28
BT 4 Ten-Key Calculation .....  2
Resume/Interview. ..... 1.5
Working Relationships ..... 1.5
Microsoft Word 1 ..... 1.5


## ADAPTIVE ORNAMENTAL HORTICULTURE SKI LLS - MA OR \#1060

The Adaptive Ornamental Horticulture Skills Program was designed to provide students with disabilities both educational and vocational opportunities. ACertificate of Completion will not only validate participation in the program, but it will also enhance the opportunities to secure gainful employment.
CERTI FI CATE OF COMPLETION
DEVSER $262 \quad$ Group Dynamics for the Disabled .................... 4
DEVSER 275 Horticulture Skills I............................................. 2
DEVSER 276 Horticulture Skills II ........................................... 2
Total 8

## AFRICAN-AMERICAN STUDIES -

## MAJ OR \#7640

The objectives of the African-American program at Fresno City College are:

1. To assist all students to appreciate the culture and achievements of African-Americans.
2. To assist all students to develop an awareness and an appreciation of African culture and its influence on America.
3. To help students leam about themselves and their heritage and promotea secure identity and motivation to achieve.
4. To promote the development of self-acceptance enabling students to relate to others effectively and meaningfully.
5. To enable studentsto identify with higher education and the environment, resulting in a sense of pride in their heritage and culture.
6. To provide training in research methods enabling students to carry out meaningful research and to discover the true needs and aspirations of the African-American community.
ASSOCI ATE IN ARTS DEGREE
TOTAL UNITS REQUI RED ..... 27
REQUI RED CORE COURSES: SELECT 24 UNITS ..... Units
AFRAM 1 African-American Culture .....  3
AFRAM 2 The Cultural Adaptation of the African-American .....  3
AFRAM 3 African-American Art .....  3
AFRAM4 African Civilization .....  3
AFRAM 5 The African in the New World .....  3
AFRAM 6 African Cultures and Languages .....  3
AFRAM 13 African-American Music to 1940 .....  3
AFRAM 15 African-American Music 1940 to present .....  3
ENGL 1B Introduction to Study of Literature .....  3
COURSE OPTI ONS: SELECT 3 UNITS Units
AFRAM 8 African Creativity Workshop .....  3
AFRAM/WSTS 41 Black Women in America .....  3
AFRAM 17 African-American Literature .....  3
AFRAM/DANCE 42 African Dance and Percussion .....  3
AFRAM $49 \quad$ Black Gospel Choir .....  3
AFRAM 21/SWAHIL 1 Beginning Swahili .....  4
AFRAM 22/SWAHII 2 High-Beginning Swahili .....  4
AFRAM 36 Contemporary Africa .....  3
Notes: 1. An associate in arts degree will be awarded to any candidate who successfully completes 60 units. The 60 units must include associate degree requirements and at least 27 units of course work as listed above.
7. Associate degree requirements are listed on page 28 of this catalog. General Education requirements for transfer certification are on page 35.

## AIR CONDITIONI NG - MAJ OR \#8030

The program provides training in troubleshooting, maintenance, repair and installation of heating, cooling and refrigeration systems. The curriculum will emphasize fundamental and advanced skills in both classroom and lab activities. Students will train on residential and commercial systems similar to those found in the workplace. Upon successful completion of the program, students may take the Air Conditioning \& Refrigeration Institute's Industry Competency Examination and may earn EPA approved certification under provisions of the Federal Clean Air Act, Section 608.
ASSOCI ATE IN SCI ENCE DEGREE AND CERTI FI CATE OF ACHIEVEMENT

FI RST YEAR
First Semester Units
AC 50 Principles of Mechanical Refrigeration ............... 3
AC 51 Electrical Systems ................................................ 6

| AC 53 | Measurements and Diagnosis ........................... 6 |
| :---: | :---: |
| AT 10 | Technical Computer Applications ...................... 2 |
|  | Total 17 |
| Second Semester | Uer Units |
| AC 52 | Heating Systems .............................................. 6 |
| AC 54 | Commercial Systems ....................................... 6 |
| AC 56 | Duct Systems .................................................. 3 |
|  | Total 15 |
| SECOND YEAR |  |
| First Semester | Units |
| AT 11 | Electricity ......................................................... 3 |
| AT 21 | Occupational Safety \& Health ........................... 2 |
| AT 130 | Industrial Math ............................................... 3 |
| WELD 1 | Basic Welding ................................................... 3 |
|  | Total 11 |
| Second SemesterARCH 12 | Uer Units |
|  | Architectural Practices ..................................... 3 |
| AT 40 | Preparing for Employment Opportunities .......... 3 |
| AT 120 | Industrial Science.......................................... 3 |
| EST 55A | Digital Concepts .............................................. 3 |
|  | Total 12 |
| Note: Sudents qual major requir ciate degree r will be award | lify for the certificate of achievement upon completion of the ements listed above. In addition, those completing the assorequirements on page 28 of the catalog, upon application, ded the associate in science degree. |

## AMERICAN INDIAN STUDIES - MAJ OR \#7680

Fresno City College is located in an area that is rich in the history and contemporary cultures of American Indians. Califormia has the highest American-Indian population in the United States, and there are 14 reservations in our immediate area. American Indian Studies exists to serve Indian and non-Indian students who will be working in any service field, academic or social institution. The program leading to the associate in arts degree will also provide a foundation in American Indian Studies for students wishing to pursue a higher degree in the subject at a four-year university. In recent years, several graduate programs have begun in American-Indian Studies at universities in California and elsewhere.
Student must complete 14 units of required basic core courses. Select 9 units from the course options listed below for a total of 23 units for an associate in arts degree.
ASSOCIATE IN ARTS DEGREE
REQUI RED CORE COURSES Units
AMIND 31 American Indian Culture .................................... 3
AMIND 32 American Indian History .................................. 3
AMIND 33 Indians of the San Joaquin Valley...................... 2
AMID 34 American Indian Contempry Society................... 3
AMIND 35 American Indian Art .....  3
Total 14
COURSE OPTI ONS: SELECT A MINIMUM OF 9 UNITS UnitsANTHRO 14 Folklore 3
ANTHRO 20 California Indians .....  3
ANTHRO 28 Ancient Mexico .....  3
AFRAM 5 The African in the New World .....  3
GEOG 2 Cultural Geography .....  3
SOC2 American Minority Groups ..... 3
Notes: 1. An associate in arts degree will be awarded to any candidate whosuccessfully completes a total of 60 units. The 60 units must in-clude associate degree requirements and 22 units in course workas listed above.
2. Associate degree requirements are listed on page 28 of this catalog. General Education requirements for transfer certification are on page 35.

## ANTHROPOLOGY - maj OR \#7100

A program designed to acquaint students with the diversity of human behavior, Anthropology offers a broad approach to the study of people including the prehistoric, biological, and cultural perspectives. Because of its wide coverage, anthropology provides a versatile background which can serve as a solid foundation not only for transfer students in anthropology but for many fields and vocations.
ASSOCI ATE IN ARTS DEGREE Units
ANTHRO 1 Physical Anthropology .....  3
ANTHRO 2 Cultural Anthropology .....  3
ANTHRO 3 Intro to Archaeology. .....  3
ANTHRO 4 Field Archaeology .....  2
ANTHRO 5 Field Archaeology .....  2
ANTHRO 20 California Indians .....  3
ANTHRO 27 Archaeol Reconnaissance .....  1
ANTHRO 28 Ancient Mexico .....  3
Total Units in Major 20
SUGGESTED SEQUENCE OF COURSES
First Semester ..... Units
ANTHRO 2 Cultural Anthropology .....  3
PSY 2 General Psychology .....  3
ENGL 1A Reading \& Composition .....  4
SPEECH1 Intro to Public Speaking, or SPEECH2 Interpersonal Communication .....  3
Electives, or
General Education .....  3
Physical Education .....  1
 Total 15
Recommended Electives: ANTHRO 13; BIOL 7, 20; ECON 1A, 1B; GEOG 4B; LING 10; AMIND 31.

## ANTHROPOLOGY - ARCHAEOLOGY ARCHAEOLOGI CAL TECHNI CIAN - MAJ OR \#1120

The paraprofessional archaeologist works as a field and laboratory technician or assistant supervisor under the direction of professionals. The certificate of achievement is a program designed to enable nonprofessional archaeologists to receive training in the various aspects of modern archaeology and to achieve recognition and employment in this scientific field.

## CERTIFICATE OF ACHIEVEMENT

REQUI RED CORE COURSES Units
ANTHRO 1 Physical Anthropology ....................................... 3
ANTHRO 2 Cultural Anthropology ...................................... 3
ANTHRO 3 Introduction to Archaeology............................. 3
ANTHRO 4 Field Archaeology ............................................ 2
ANTHRO 5 Field Archaeology ............................................. 2
ANTHRO 27 Archaeol Reconnaissance (1st sem) ................... 1
ANTHRO 27 Archaeol Reconnaissance (2nd sem) ................ 1
COURSE OPTI ONS: 5 UNITS MINIMUM Units
ANTHRO 20 California Indians .....  3
ANTHRO 27 Archaeol Reconnaissance (3rd sem) .....  1
ANTHRO 19 Occupational Work Experience ..... 1-3
BIOL 7 Field Biology .....  4
APPRENTICESHIP AUTOMOTIVE AND HEAVY-DUTY ELECTRICAL - MAJ OR \#9020
This curriculum is designed for the auto electrical or heavy-dutyelectrical worker who is employed full time and indentured as an ap-prentice by the Automotive Mechanics Joint Apprenticeship Commit-tee.
CERTIFICATE OF ACHIEVEMENT
FI RST YEAR
First Semester ..... Units
APP 360 Intro to Apprenticeship Training .....  0
Second Semester
AT 21 Occupational Safety \& Health .....  2
SECOND YEAR
First Semester ..... Units
AUTOT 283A Engine Performance \& Diagnosis .....  3
Second Semester ..... Units
AUTOT 283A Engine Performance \& Diagnosis .....  3
THI RD YEAR
First Semester ..... Units
SPEECH2 Interpersonal Communication .....  3
Second Semester ..... Units
DRAFT 12 Board Drafting Practices .....  3
FOURTH YEAR
First Semester ..... UnitsAUTOT 284 Automotive Air Conditioning .............................. 3
Second Semester ..... Units
Elective* .....  3
Total 20

Recommended Elective: APP 19
*Contact Coordinator of Apprenticeship Training

## APPRENTICESHIP AUTOMOTIVE MECHANICS - MAJ OR \#0040

This curriculum is designed for the automotive mechanic who is employed full time and indentured as an apprentice by the Autom otive Mechanics Joint Apprenticeship Committee.

Second Semester Units
AUTOT 294 Lamp/Brake Adjustment/Cert Prep .....  3
First Semester ..... Units
AT 10 Technical Computer Applications .....  2
Second Semester ..... Units
ACRT 55 Spray Refinishing .....  2
Total 19

Recommended Elective: AT 130.

## APPRENTI CESHIP COOK - MAJ OR \#9085

This curriculum is designed to fulfill the academic requirements of the American Culinary Federation Institute's Apprenticeship Training Program for Chefs. For those cooks who are employed full time and indentured as an apprentice by the San Joaquin Valley of American Culinary Association Joint Apprenticeship Committee.
CERTIFICATE OF COMPLETION
FI RST YEAR
First Semester Units

FN 1 Principles of Food Preparation ............................. 3
FSM 35 Sanitation, Safety \& Equipment........................... 2
Second Semester Units
BT 31 Applied Accounting.............................................. 3
SECOND YEAR
First Semester Units
FSM 25 Food \& Beverage Control ...................................... 2
Second Semester Units
$\begin{array}{ll}\text { FN } 35 & \text { Nutrition \& Health, or } \\ \text { FN } 40 & \text { Nutrition ........................................................... } 3\end{array}$
THI RD YEAR
First Semester Units
FSM 11 Food Service Supervision ..................................... 2
Second Semester Units
FSM 15 Food Production Management ............................ 2
Total 17

## APPRENTICESHIP DIESEL AND <br> HEAVY-DUTY MECHANICS - MAJ OR \#9100

This curriculum is designed for the diesel and heavy-duty mechanic who is employed full time and indentured as an apprentice by the Automotive Mechanics Joint Apprenticeship Committee.
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CERTI FICATE OF COMPLETI ON
FIRST YEAR
First Semester Units
APP 360 Intro to Apprenticeship Training........................ 0
Second Semester Units
APP 361/3B Diesel \& Heary-Duty Mechanics......................... 0
SECOND YEAR
First Semester Units
APP 361/3B Diesel \& Heavy-Duty Mechanics......................... 0
Second Semester Units
APP 361/3B Diesel \& Heary-Duty Mechanics.......................... 0
THI RD YEAR
First Semester Units
AUTOT 282A Suspension and Wheel Alignment....................... 3
Second Semester Units
AUTOT 282B Automotive Braking Systems............................... 3
FOURTH YEAR
First Semester
WELD 1 Basic Welding .................................................. 3
Second Semester Units
AUTOT 284 Automotive Air Conditioning ............................. 3
Total 12
Recommended Elective: APP 19.

## APPRENTICESHIP ELECTRONICS -

MAJ OR \#9140
This curriculum is designed for the electronics technician who is employed full time and indentured as an apprentice by the Electronics Joint Apprenticeship Committee.

## CERTIFICATION OF ACHIEVEMENT <br> FIRST YEAR <br> First Semester Units

EST 50 Introduction to Electronics ............................... 3

| Second Semester | Units |
| :--- | :--- |
| EST 51 | Fundamentals of Electronics ............................. 3 |

SECOND YEAR
FIRST SEMESTER UNITS
AT 10 Technical Computer Applications ....................... 2
Second Semester ..... Units
EST 54 Integrated Devices .....  3
THI RD YEAR
First Semester ..... Units
EST 55A Digital Applications. .....  8
Second Semester ..... Units
EST 52 Circuit Analysis

$\qquad$

FOURTH YEAR
First Semester Units
AT 21 Occupational Safety and Health ......................... 2
Second Semester Units

Total 25.5
Recommended Elective: EST 57.
*Contact Coordinator of Apprenticeship Training

## APPRENTICESHIP MACHINE SHOP -

MAJ OR \#9200
This curriculum is designed for the machinist who is employed full time and indentured as an apprentice by the Machinist Joint Apprenticeship Committee.
CERTIFICATE OF COMPLETION
FIRST YEAR
First Semester Units

APP 360 Intro to Apprenticeship Training......................... 0

| Second Semester | Units |
| :--- | :--- |
| AT 21 | Occupational Safety \& Health ........................... 2 |

SECOND YEAR
First Semester Units

DRAFT 12 Board Drafting Practice ....................................... 3
Second Semester Units
AT 130 Industrial Math ............................................... 3
THI RD YEAR
First Semester Units
AT 10 Technical Computer Applications ....................... 2

FOURTH YEAR
First Semester
WELD 1 $\quad$ Units Welding $\quad 3$

WLED 1 Basic Welding ................................................. 3
Second Semester Units
AT 120 Industrial Science............................................. 3
Total 19

## APPRENTICESHIP PARTSCLERK -

MAJ OR \#9260
This curriculum is designed for the partsclerk who is employed full time and indentured as an apprentice by the Automotive Mechanics Joint Apprenticeship Committee.


## APPRENTICESHIP STATIONARY <br> ENGI NEERS - MAJ OR \#9360

This curriculum is designed for the stationary engineer who is employed full time and indentured as an apprentice by the Stationary Engineers Joint Apprenticeship Committee.
CERTI FICATE OF ACHIEVEMENT
FI RST YEAR
First Semester Units
AT 130 Industrial Mathematics ........................................ 3
Second Semester Units
AT 21 Occupational Safety and Health ........................... 2
SECOND YEAR
First Semester Units
WELD 1 Basic Welding ........................................................ 3
Second Semester Units
AT 11 Basic Electricity................................................... 3
THI RD YEAR
First Semester Units
AC 60A Basic Systems ........................................................ 3
Second Semester Units
AC 260B Electricity for Air Conditioning ............................ 3
FOURTH YEAR
First Semester Units
AT 10 Technical Computer Applications ........................ 2
Second Semester Units
EST 272 Industrial Motor Control ......................................... 3
Total 22
Recommended Elective: APP 19.

## APPRENTICESHIP WELDI NG - MAj OR \#9380

This curriculum is designed for the welder who is employed full time and indentured as an apprentice by the Welding/Machinist Joint Apprenticeship Committee.
CERTIFICATE OF COMPLETION
FI RST YEAR
First Semester Units
APP 360 Intro to Apprenticeship Training.......................... 0
Second Semester Units
AT 21 Occupational Safety \& Health .............................. 2
SECOND YEAR
First Semester Units
DRAFT 12 Board Drafting Practices ....................................... 3
Second Semester Units
AT 130 Industrial Math .................................................. 3

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| THI RD YEAR |  |
| :---: | :---: |
| First Semester | Units |
| AT 120 | Industrial Science............................................ 3 |
| Second Semester | er Units |
| AT 11 | Basic Electricity.......................................... 3 |
| FOURTH YEAR |  |
| First Semester | Units |
| Elective* | ....... 3 |
| Second Semeste | er Units |
| WELD 56 | Blueprint Reading for Welders............................ 2 |
|  | Total 19 |

Recommended Elective: APP 19.
*Contact Coordinator of Apprentiosship Training

## ARCHITECTURE - MA J OR \#6810

This curriculum is designed to prepare students for employment with architects, building contractors, building material companies, government agencies and degree programs in architecture.
ASSOCIATE IN SCI ENCE DEGREE AND
CERTIFICATE OF ACHIEVEMENT
FI RST YEAR
$\begin{array}{ll}\text { First Semester } \\ \text { ARCH } 10 & \text { Perspective Drawing ....................................... } 2\end{array}$
ARCH 11 Intro to Arch .................................................. 1
ARCH 12 Arch Practice .................................................. 3
AT 10 Technical Computer Applications ...................... 2
CADD 14 Introduction to CAD ......................................... 3
DRAFT 160 Math of Drafting............................................ 3
Total 14
Second Semester Units
ARCH 20 Basic Graphics.................................................. 2
ARCH 21 Materials of Construction .................................. 3
ARCH 22 Arch Practice ................................................... 3
ARCH 24 Arch CAD ........................................................... 2
AT 31 Technical Reports ........................................... 3
Total 13
SECOND YEAR
$\begin{array}{ll}\text { First Semester } \\ \text { ARCH } 30 & \text { Environmental Design ................................... } 3\end{array}$
ARCH 31 Building Codes ................................................. 3
ARCH 32 Strength of Material ........................................ 3
ARCH 34 Advanced Arch CAD.............................................. 3
Total 1223Units
Second SemesterARCH 40 Environmental Design 3
ARCH 41A Office Practices .....  3
ARCH 42 Steel and Timber .....  3
ARCH 44 Arch Comp Rendering .....  3AT 40 Preparing for Employment Opportunities ........... 3
Total 15
Note: Students qualify for the certificate of achievementupon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 28 of the catalog, upon application, will be awarded the associate in science degree.

## ART: TWO- OR THREE-DIMENSIONAL ART

## ASSOCIATE IN ARTS DEGREE AND CERTIFICATE OF ACHIEVEMENT

Students must complete 18 units of required basic core courses and select 9 units from the course options listed below for a total of 27 units to complete an associate in arts degree in art.
REQUI RED CORE COURSES ..... Units
ART 3 Two-Dimensional Design .....  3
ART 4 Three-Dimensional Design .....  3
ART 5 Art History 1 .....  3
ART 6 .....  3ART 7Beginning Drawing
ART 49Gallery Practices 3SELECT AMINMUM OF 9 UNITS: Art majors must complete 2 classes( 6 semester units) within one of the following specialties: DRAWING,CERAMICS, PAINTING, SCULPTURE, PRINTMAKING, CRAFT and TEX-TILE DESIGN. In addition, one course ( 3 semester units) must be se-lected from the opposite dimensional area.

TWO-DIMENSIONAL - MAJ OR \#5201

|  | Units |
| :---: | :---: |
| ART 17, 27 | Intermediate and Advanced Drawing ...............3-3 |
| ART 8, 18 | Beginning and Intermediate Life Drawing and |
|  | Anatomy ................................................3-3 |

ART 9, 19, 29 Beginning, Intermediate and Advanced Painting: Oil/Acrylic. ..... 3-3-3
ART 13, 23 Beginning and Intermediate Watercolor Painting ..... 3-3
ART 14, 24, 34 Beginning, Intermediate and Advanced Printmaking ..... 3-3-3
ART 16 Life Painting. ..... 3-3-3
ART 25 Mural Painting .....  3


## AUTOMOTIVE COLLISI ON REPAIR TECHNOLOGY formerly body and fender mechanic

- MAJ OR \#8071

Training in this field is designed to prepare the student for employment as an advanced apprentice trainee in body repairing, reconstruction finishing.

| ASSOCI ATE IN SCI ENCE AND CERTI FICATE OF ACHIEVEMENT |  |
| :---: | :---: |
| FIRST YEAR |  |
| First Semester | Units |
| ACRT 51A | Basic ............................................................ 5 |
| AT 21 | Occupational Safety \& Health ........................... 2 |
| WELD 2A | Intro to Welding.............................................. 5 |
|  | Total 12 |
| Second Semester Units |  |
| ACRT 51B | Basic ............................................................. 5 |
| AT 11 | Basic Electricity.............................................. 3 |
| AT 130 | Industrial Mathematics ................................... 3 |
|  | Total 11 |
| SECOND YEAR |  |
| First Semester Units |  |
| ACRT 53A | Advanced ....................................................... 5 |
| AT 10 | Tech Computer Applications ............................. 2 |
| AT 31 | Technical Reports ........................................... 3 |
|  | Total 10 |
| Second Semester Units |  |
| ACRT 53B | Advanced ...................................................... 5 |
| AT 40 | Preparing for Employment Opportunities .......... 3 |
| AT 120 | Industrial Science........................................... 3 |

Recommended Electives: ACRT 55; AUTOT 19, 54, 282A
Note: Associate degree requirements are listed on page 28.

## AUTOMOTI VE TECHNOLOGY - maj or \#8051

Satisfactory completion of this curriculum prepares the student for entry-level employment as a skilled technician in the automotive service and repair industry. Students will perform actual service and repair procedures in the automotive laboratory. This curriculum has been certified by the National Automotive Technicians Education Foundation (NATEF).

| ASSOCI ATE IN SCI ENCE DEGREE AND |  |
| :---: | :---: |
| CERTI FICATE OF ACHIEVEMENT |  |
| FIRST YEAR |  |
| First Semester | Units |
| AT 21 | Occupational Safety and Health ......................... 2 |
| *AUTOT 9 | Auto Essentials ............................................... 3 |
| $\dagger$ AUTOT 51 | Principles of Engine Theory ............................. 3 |
| $\dagger$ AUTOT 51L | Automotive Engine Laboratory .......................... 2 |
| AUTOT 52 | Automotive Electrical Systems ........................... 5 |
| AUTOT 53 | Engine Performance ........................................ 5 |

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| Second Semest | er Units |
| :---: | :---: |
| AT 10 | Technical Computer Applications ..................... 2 |
| AT 130 | Industrial Math .............................................. 3 |
| **AUTOT 19 | Work Experience .........................................2-4 |
| AUTOT 55 | Power Trains: Transmissions/Transaxles, ............ |
| Differentials, and | and Driveaxles .................................................. 5 |
| AUTOT 57 | Automotive Heating, Ventilation, | Total 17-19

SECOND YEAR
First Semester Units
AT 40 Preparing for Employment Opportunities ........... 3
**AUTOT 19 Work Experience ...............................................-2-4
AUTOT 54 Suspension, Steering, and Wheel Alignment....... 5
AUTOT 56 Automotive Braking Systems.............................. 5
Total 15-17

Second Semester Units
**AUTOT 19 Work Experience ...............................................-4
WELD 1 Exploring Welding and Metals ........................... 3

Total 11-13
Recommended Electives: AT 31, 120; AUTOT 58; BA20; ENGL 126; HLTH
1; PHOTO 5; POLSCI 10; SPEECH 2; PE.

* High School articulation (1 year)
** Sudents must complete at least 10 units of work experience.
$\dagger$ Course offered during summer session.
Note: The associate in science degree will be awarded to any student who successully completes the above courses and at least 10 units of work expe rience (AUTOT 19). Assciate in science degree requirements are listed on page 28.


## GENERAL MOTORS ASEP PROGRAM - MAJ OR \#805G

The General Motors Automotive Service Educational Program (GM ASEP) is a two-year associate degree program. GM ASEP incorporates the most advanced automotive technical training with a strong academic foundation in math, English, electronics, analytical and technical skills. The student earns a solid education combined with invaluable work experience for hands-on learning.

The National Automotive Technicians Education Foundation
(NATEF) and General Motors Corporation certify this curriculum.
ASSOCI ATE IN SCI ENCE DEGREE
FIRST YEAR
Fall Semester Units
AT 10 Technical Computer Applications ....................... 2
AT 130 Industrial Math ................................................ 3
ATGM 54 Suspension, Steering, and Wheel Alignment.. .....  5
ATGM 56 Automotive Braking Systems .....  5
*AUTOT 9 Automotive Essentials .....  3
Electives .....  3
Total 21
Spring Semester ..... Units
AT 31 Technical Report Writing .....  3
ATGM 52 Automotive Electrical Systems .....  5
**AUTOT 19 Work Experience .....  4
Electives .....  6
Total 18
Summer Semester ..... Units
ATGM 51 Principles of Engine Theory .....  3
ATGM 51L Automotive Engine Laboratory .....  2
**AUTOT 19 Work Experience .....  3
Electives .....  1
Total 9
SECOND YEAR
Fall Semester Units
**AUTOT 19 Work Experience .....  4
Electives .....  6
Total 15
Spring Semester ..... Units
ATGM 55 Power Trains: Transmissions/Transaxles, .....  5
Differentials, and DriveaxlesAT 120 Industrial Science............................................ 3
**AUTOT 19 Work Experience .....  4
Electives .....  3
Total 15
Summer Semester ..... Units
ATGM 57 Automotive Heating, Ventilation, Air Conditioning, and Advanced Electronics .....  5
Electives .....  1Total 6
Recommended Electives: AUTOT 58; BA 20; ENGL 26; HLTH 1; PE; PHOTO 5; POLSCI 10; SPEECH 2.

* High School articulation (1 year)
** Sudents must complete at least 15 units of work experience.
The associate in science degree will be awarded to any student who successfully completes the above course work and the associate degree require ments. (Associate in scienoe degree requirements are listed on page 28 of this catalog.)


## BI LINGUAL/ BICULTURAL ENGLISH-SPANISH NONTRANSFER -

MAJ OR \#7670
$\begin{array}{lll}\text { ASSOCI ATE IN SCI ENCE DEGREE } & \\ \text { FIRST YEAR } & & \\ \text { First Semester } & & \text { Units } \\ \text { SPAN 3 } & \text { Intermediate Spanish.................................... } 4 \\ \text { ENGL 125 } & \text { Writing Skills for College, or } & \\ \text { ENGL 153 } & \text { English Fundamentals, or } & \\ \text { ELL 67 } & \text { Grammar/Writing/Reading, or } & \\ \text { ENGL 1A } & \text { Reading and Composition............................4 } \\ \text { 3-4 }\end{array}$
CLS 11 Intro to Chicano-Latino Studies.......................... 3
Physical Education ..................................................................... 1
Electives ...................................................................... 3
Total 14-15
Second Semester Units
SPAN 4 High-Intermediate Spanish................................ 4
CLS 17 Mexican Folklorico Dance................................... 3
LING 10 Intro to Language............................................ 3
HLTH 1 Contemporary Health Issues ........................... 3
Total 13
SECOND YEAR Units
First Semester
EDUC 30 Survey of Education ........................................... 3
CLS 28 Ancient Mexico: Civiliz \& Cult............................ 3
MATH Requirement .........................................................................

Physical Education ..................................................................... 1

Total 14
Second Semester Units
EDA 19 Occupational Work Experience .......................... 4
SPEECH 1 Intro to Public Speaking, or
SPEECH 2 Interpersonal Communication .......................... 3

Physical Education ....................................................................... 1

Total 14-16
Recommended Electives: ART 45; BIOL3A, 46; CLS 14, 18, 29; CHDEV
33, 39; GEOG 2; GEOL 1A; MATH 101, 102, 21, 40; PSY 2, 39; SPAN5, 6.

## BI LI NGUAL/ CROSSCULTURAL SPANISH-ENGLISH MAJ OR - MA OR \#7690

ASSOCI ATE IN ARTS DEGREE
FI RST YEAR
First Semester Units
*SPAN 3 Intermediate Spanish ......................................... 4
CLS 11 Intro to Chicano-Latino Studies......................... 3
ENGL 1A Reading \& Composition .................................. 4
ART 7, 10, 11,22 or CLS 20, or PHOTO 10..................................... 3
$\begin{array}{cl}\text { SPEECH1 } & \text { Intro to Public Speaking, or } \\ \text { SPEECH2 } & \text { Interpersonal Communication ......................... } 3\end{array}$
Physical Education ........................................................................ 1 Total 18
Second Semester Units
*SPAN4 High-Intermediate Spanish............................... 4
HLTH 1 Contemporary Health Issues .............................. 3


MATH 103 Intermediate Algebra....................................... 3

Total 16-17
SECOND YEAR
First Semester Units
*CLS/SOC 14 Soc of Chicano Community ............................... 3
$\begin{array}{ll}\text { GEOG } 7 & \text { Physical Geog: Earth's Surface, or } \\ \text { GEOG } 8 & \text { Phys Geog: Weather \& Climate........................... } 4\end{array}$
$\begin{array}{ll}\text { GEOL } 1 & \text { Physical Geology, or } \\ \text { GEOL2 } 2 & \text { Historical Geology .....................................3-3 }\end{array}$
*LING 10 Introduction to Language .................................. 3
CHDEV 39 Child Development, or
PSY 2 General Psychology, or
PSY 39 Child Development......................................... 3
TA 12 Fund of Interpretation, or
$\begin{array}{ll}\text { TA31A \& 31B } & \text { Elem Techniques of Acting, or } \\ \text { SPEECH } 12 & \text { Fund of Interpretation ........................................ }\end{array}$

Total 19-20
Second Semester Units
BIOL 1 Principles of Biology, or
BIOL 3 Natural Hist Approach to Biol ............................ 4
$\begin{array}{ll}\text { HIST } 1 & \text { Survey of Western Civilization, or } \\ \text { HIST } 2 & \text { Survey of Western Civilization }\end{array}$
ART 2 Art Appreciation, or
ART 5 Art History 1, or

*CLS 21 Chicano Literature, or
ENGL 1B, 44, 45, 46, 48........................................................ 3
POLSCI 2 American Government...................................... 3

English 3 recommended. Required for full General Education Certification.
*Twenty (20) units required for major.
BODY AND FENDER MECHANIC

SEE AUTOMOTIVE COLLISION REPAIR TECHNOLOGY

## BUILDING SAFETY AND CODE ADMI NI STRATION - MA OR \#8220

This curriculum is designed to prepare students for employment with building departments, other governmental agencies, and private inspection companies.

| ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |
| :---: | :---: |
| FIRST YEAR |  |
| First Semester | Units |
| +BSCA 10 | Building Code............................................... 3 |
| +BSCA 12 | Plans Examining ........................................ 3 |
| +BSCA 14 | Building Inspection ...................................... 3 |
| ARCH 12 | Arch Practice .............................................. 3 |
| DRAFT 160 | Math of Drafting ......................................... 3 |
|  | Total 15 |
| Second Semester Units |  |
| +BSCA 20 | Advanced Building Codes ................................ 3 |
| ARCH 21 | Building Materials ......................................... 3 |
| +\#Electives | (Certificate of Completion only) ....................... 6 |
|  | Total 12 |

SECOND YEAR
First Semester Units
ARCH 31 Strength of Materials........................................ 3
ARCH 33 Energy Conservation ........................................ 3
AT 10 Technical Computer Applications ....................... 2
AT 40 Preparing for Employment Opportunities ........... 3
Total 11
+Required courses for certificate of completion.
\#\#lectives for certificate of completion may be selected from the following:
Units
BSCA 15 Plumbing Code \& Inspection ............................ 3
BSCA 16 Mechanical Code \& Inspection ........................... 3
BSCA 17 Electrical Code \& Inspection .............................. 3
BSCA 22 Advanced Plans Examining .............................. 3
BSCA 24 Advanced Building Inspection ............................ 3
Note: Sudents qualify for the cerrificate of achievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 28 of the catalog, upon application, will be awarded the associate in science degree.
BUSI NESS ADMI NISTRATION - MAJ OR \#2050
Recommended transfer program for California State University,
Fresno. The following courses are required for the Associate in Arts de
gree.
ASSOCI ATE IN ARTS DEGREE
FIRST YEAR
First Semester ..... Units
**BA/MGMT 10 Introduction to Business .....  3
Total 3
Second Semester ..... Units
*IS 15 Computer Concepts .....  3
*BA 18 Business and the Legal Environment .....  4
Total 7
SECOND YEAR
First Semester Units
*ACCTG 4A Principles of Financial Accounting .....  4
*ECON 1A Introduction to Macroeconomics .....  3
***DS 21 Finite Math .....  3
****BA 20 Law \& Legal System .....  3
Total 13
Second Semester ..... Units
*ACCTG 4B Principles of Managerial Accounting .....  4
*ECON 1B Introduction to Microeconomics. .....  3
*DS 23 Statistical Analysis. .....  3*CSUF transfer courses rexuired to enter the School of Business at CSUF
**Transfers as an elective
${ }^{* * *}$ Satisfies SSUF's GE, B.4, and FOC's GE, D.2, and is required by CSUF ****Satisfies CSUF's GE, D.8, and FCC's GE, B. 2
Note: Associate degree requirements are listed on page 28.

## ENTREPRENEURIAL VENTURES - MAJ OR \#2041

This certificate is designed to provide skilled artisans and othertradesoriented individuals with the necessary skills to market their creations and succeed in business. These courses are focused on the start-up phases of a business and address the following questions: What are the basic business concepts? Do I have what it takes to start a business? What are the practical steps in starting a new business, from market research to financing?

| CERTIFICATE OF COMPLETION |  | Units |
| :---: | :---: | :---: |
| BA50 | Business Concepts.. |  |
| BA 51 | Survey of Entrepreneurship. | $\ldots . . . .1 .5$ |
| BA 52 | Entrepreneurship Strategies | . |
|  |  | tal 6 |

## BUSI NESS ADMI NI STRATI ON/ MARKETI NG, RETAI L MANAGEMENT - MAJ OR \#2401

The program prepares current and future retail employees for the fast paced, ever changing challenges in a competitive retail environment. Specific occupational preparation is provided in the following program.

## ASSOCI ATE IN SCI ENCE DEGREE AND

CERTI FICATE OF ACHI EVEMENT
First Semester Units
BA5 Business Communications................................. 3
BT 115 Refresher Math ...................................................
IS 15 Computer Concepts ......................................... 3
SPEECH 1 Introduction to Public Speaking........................ 3 Total 12

Second Semester Units
BAMMGMT 10 Introduction to Business ................................. 3
BT 131 Applied Accounting.......................................... 3
MKTG/FM 10 Principles of Marketing .................................... 3
Total 9
Third Semester Units
BA MGMT 31 Human Resources Management........................ 3
BA/MGMT 33 Human Relations in Business............................. 3
MKTG/FM 14 Retailing ......................................................... 3
Total 9
Note: Students qualify for the certificate of achievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 28 of the catalog, upon application, will be awarded the associate in science degree.

## BUSI NESS \& TECHNOLOGY PROGRAM

## ASSOCI ATE IN SCI ENCE DEGREE AND CERTI FICATE OF ACHI EVEMENT

A student may earn one Certificate of Achievement and ten Certificates of Completion in the Business \& Technology Program. To get the additional Certificates of Completion, the student needs to take the courses unique to the emphasis area.

Core courses, a keyboarding speed of 40 gross words per minute with 97 percent accuracy on three five- minute timed writings, and a ten-key calculator speed of 110 correct strokes per minute on three five-minute timed writings are required in ALL Business \& Technology emphases.
REQUIRED CORE COURSES Units
*BT 1 Beginning Typing ................................................ 3
*BT 2 Word Processing I ................................................. 3
*BT 4 Ten-Key Calculation .............................................. 2
BT 10 Records Management........................................... 3
BT 11 Today's Office ...................................................... 2
*BT 13 Applied Business Correspondence. .....  2
BT 20 Resume/Interview. .....  1.5
BT 21 Working Relationships ..... 1.5
*BT 112 Business English ..... 2
*BT 115 Refresher Math .....  3
*BT 116 Spelling \& Vocabulary Building .....  2
*BT 122 Skillbuilding .....  1
Total Core Requirements 26
*Requirements will be waived if knowledge and skill in the subject matter can be demonstrated through testing. Call the Business Division for the date and time for waiver testing.

ADMI NISTRATIVE ASSISTANT EMPHASIS
FORMERLY SECRETARIAL SCI ENCE EMPHASIS - MAJ OR \#2212
FI RST YEAR
First Semester Units
BT 10 Records Management. .....  3
*BT 112 Business English .....  2
Refresher Math .....  3
*BT 116 Spelling \& Vocabulary Building ..... Total 13
Second Semester Units
*BT 4 Ten-Key Calculation .....  3
BT 9 Integrated Computer Applications .....  3
BT 11 Today's Office .....  2
*BT 13 Applied Business Correspondence. .....  2
*BT 122 Skillbuilding .....  1
SECOND YEAR
First Semester ..... Units
BT $3 \quad$ Word Processing II .....  6
BT 5 Business Communications .....  3
BT 19 Work Experience. .....  2
BT 20 Resume/Interview. .....  1.5
BT 21 Working Relationships. ..... 1.5
BT 30 Machine Transcription ..... 2Total 16
Total Program Requirements 42
*Requirement will be waived if knowledge and skill in the subject matter can be demonstrated through testing.
Akeyboarding speed of 40 gross words a minute with 97 percent accuracy on three five minute timed writings and a ten-key calculator speed of 110 correct strokes per minute on threefive minute timed writings are required to earn a Certificate of Achievement and/or ASdegree.

CLERI CAL EMPHASIS - MAJ OR \#2061

| FIRST YEAR |  |
| :---: | :---: |
| First Semester | Units |
| *BT 1 | Beginning Typing ......................................... 3 |
| BT 10 | Records Management................................... 3 |
| *BT 112 | Business English ........................................... 2 |
| *BT 115 | Refresher Math ............................................. 3 |
| *BT 116 | Spelling \& Vocabulary Building ....................... 2 |
|  | Total 13 |
| Second Semester Units |  |
| *BT 2 | Word Processing I ........................................... 3 |
| *BT 4 | Ten-Key Calculation ....................................... 2 |
| BT 9 | Integrated Computer Applications .................... 3 |
| BT 11 | Today's Office ............................................... 2 |
| BT 131 | Applied Accounting ...................................... 3 |
|  | Total 13 |
| SECOND YEAR |  |
| First Semester | Units |
| *BT 13 | Applied Business Correspondence..................... 2 |
| BT 20 | Resume/Interview.......................................1.5 |
| BT 21 | Working Relationships..................................1.5 |
| *BT 122 | Skillbuilding ................................................ 1 |
|  | Total 6 <br> Total Program Requirements 32 |


| BT 21 | Working Relationships.................................1.5 |
| :---: | :---: |
| BT 122 | Skillbuilding ............................................... 1 |
|  | Total 13 |
| SECOND YEAR |  |
| First Semester | Units |
| BT 3 | Word Processing II ....................................... 6 |
| ВТ 30 | Machine Transcription ..................................... 2 |
| BT 140 | Legal Office Administration ........................... 3 |
| PLEGAL 7 | Law Office Practices ...................................... 3 |
|  | Total 14 |
| Second SemesterBT 19 | er Units |
|  | Work Experience .......................................... 2 |
| BT 141 | Legal Document Preparation........................... 3 |
| PLEGAL 14 | Law Office Computing .................................. 3 |
|  | Total 8 <br> Total Program Requirements 48 |
| *Requirement will be waived if knowledge and skill in the subject matter can be demonstrated through testing. |  |
| Akeyboarding speed of 40 gross words a minute with 97 percent accuracy on threefive minute timed writings and a ten-key calculator speed of 110 corred strokes per minute on three five minute timed writings are required to earn a Certificate of Achievement and/or AS degree. |  |
| MEDI CAL ADMI NISTRATI VE ASSISTANT EMPHASIS <br> - MAJ OR \#2381 |  |
| FI RST YEAR |  |
| First Semester | Units |
| *BT 1 | Beginning Typing ......................................... 3 |
| BT 10 | Records Management................................... 3 |
| *BT 112 | Business English .......................................... 2 |
| *BT 115 | Refresher Math |
| *BT 116 | Spelling \& Vocabulary ................................ 2 |
|  | Total 13 |
| Second Semest$*$ *BT 2 | er Units |
|  | Word Processing I .......................................... 3 |
| *BT 4 | Ten-Key Calculation ....................................... 2 |
| BT 11 | Today's Office .............................................. 2 |
| *BT 13 | Applied Business Correspondence..................... 2 |
| *BT 122 | Skill Building ............................................ 1 |
| HTT 10 | Medical Terminology ................................... 3 |
|  | Total 13 |
| SECOND YEAR |  |
| First Semester | Units |
| BT 3 | Word Processing II ......................................... 6 |
| BT 21 | Working Relationships................................1.5 |
| BT 144 | Medical Administrative Assistant....................... 3 |
| BT 145 | Medical Transcription I ................................. 2 |
|  | Total 12.5 |



| SECOND YEAR |  |
| :---: | :---: |
| First Semester | Units |
| BT 11 | Today's Office ................................................. 2 |
| BT 20 | Resume/Interview ............................................1.5 |
| Вт 30 | Machine Transcription ...................................... 2 |
| BT 146 | Medical Transcription II................................... 2 |
|  | Total 7.5 |

*Requirement will be waived if knowledge and skill in the subject matter can be demonstrated through testing.
Akeyboarding speed of 40 gross words a minute with 97 percent accuracy on threefive minutetimed writings and a ten-key calculator speed of 110 correct strokes per minute on three five minute timed writings are required to earn a Certificate of Achievement and/or ASdegree.

OFFICE PROFESSI ONAL EMPHASIS - MAJ OR \#2241

| FIRST YEAR |  |
| :---: | :---: |
| First Semester | Units |
| *BT 1 | Beginning Typing ...................................... 3 |
| BT 10 | Records Management................................... 3 |
| *BT 112 | Business English ........................................ 2 |
| *BT 115 | Refresher Math ........................................ 3 |
| *BT 116 | Spelling \& Vocabulary Building....................... 2 |
|  | Total 13 |
| Second Semester |  |
| *BT 2 | Word Processing I ......................................... 3 |
| *BT 4 | Ten-Key Calculation ...................................... 2 |
| BT 9 | Integrated Computer Applications .................... 3 |
| BT 11 | Today's Office ............................................ 2 |
| *BT 13 | Applied Business Correspondence..................... 2 |
| *BT 122 | Skill building ............................................. 1 |
|  | Total 13 |

SECOND YEAR
First Semester Units
BT 17 Word Processing Practicum ................................ 2
BT $19 \quad$ Work Experience ............................................. 2
BT 20 Resume/Interview.............................................. 1.5
BT 21 Working Relationships.......................................5
Total 7
Total Program Requirements 33
*Requirement will be waived if knowledge and skill in the subject matter can be demonstrated through testing.
Akeyboarding speed of 40 gross words a minute with 97 percent accuracy on threefive minutetimed writings and a ten-key calculator speed of 110 correct strokes per minute on threefive minute timed writings are required to earn a Certificate of Achievement and/or ASdegree.

WORD PROCESSOR EMPHASIS
FORMERLY TYPIST/ WORD PROCESSOR EMPHASIS -
MAJ OR \#2322

| FI RST YEAR |  |
| :---: | :---: |
| First Semester | Units |
| *BT 1 | Beginning Typing ........................................... 3 |
| BT 10 | Records Management........................................ 3 |
| *BT 112 | Business English .............................................. 2 |
| *BT 115 | Refresher Math ................................................ 3 |
| *BT 116 | Spelling \& Vocabulary Building ......................... 2 |
|  | Total 13 |
| Second Semeste | er Units |
| *BT 2 | Word Processing I ............................................ 3 |
| *BT 4 | Ten-Key Calculation ........................................... 2 |
| BT 9 | Integrated Computer Applications ..................... 3 |
| BT 11 | Today's Office ................................................. 2 |
| *BT 13 | Applied Business Correspondence...................... 2 |
| *BT 122 | Skillbuilding .................................................. 1 |
|  | Total 13 |

SECOND YEAR
First Semester Units
BT 3
Word Processing II .............................................. 6
Resume/Interview..................................................... 1.5
Working Relationships............................................ 1.5
Machine Transcription ......................................... 2
Total 11
Total Program Requirements 37
*Requirement will be waived if knowledge and skill in the subject matter can be demonstrated through testing.
Akeyboarding speed of 40 gross words a minute with 97 percent accuracy on threefive minute timed writings and a ten-key calculator speed of 110 correct strokes per minute on three five minute timed writings are required to earn a Certificate of Achievement and/or ASdegree.

BUSI NESS OFFI CE ASSI STANT - MAJ OR \#2201

| CERTIFICATE OF COMPLETI ON |  | Units |
| :---: | :---: | :---: |
| BT 1 | Beginning Typing ....................... | $\ldots$ |
| BT 2 | Word Processing I |  |
| BT 7 | WordPerfect I .... | . 1.5 |
| BT 19 | Work Experience ......... |  |
| BT 20 | Resume/Interview | .1.5 |
| BT 21 | Working Relationships...... | .1.5 |
| BT 28 | Word for Windows I ........... | ... 1.5 |
| BT 29 | Word for Windows II | .... 1.5 |
| BT 250 | Office Skills Lab | . 2 |
| BT 270 | Business Math \& 10 Key............... | .......... 2 |
| BT 271 | Business Grammar Fundamentals | ......... 2 |
| BT 272 | Office Procedures .......................... | ......... 1 |


| BT 273 | Filing ............................................................ 1 |
| :---: | :---: |
| BT 274 | Introduction to Outlook I.................................. 1 |
| BT 277 | Accelerated Access ........................................1.5 |
|  | Total 27 |
| Note: Sud strok | st demonstrate the ability to type 40 word per minute with cy on three 5 -minute timed writings and key 110 correct minute on the ten-key calculator. |
| COMPU <br> MAJ OR | APPLICATIONS SOFTWARE - |
| CERTIFIC | F COMPLETI ON Units |
| BT 7 | WordPerfect I..............................................1.5 |
| BT/IS 14 | Windows ......................................................1.5 |
| BT/IS 18 | Beginning Lotus........................................... 1 |
| BT 122 | Skillbuilding ............................................. 1 |
| BT/IS 25 | Microsoft Office ........................................... 3 |
| BT 50 or | Office Skills Lab, or |
| IS 60 | Computer Skills Lab .................................... 1 |

## MEDICAL BI LLI NG ASSI STANT - MAJ OR \#2242

## CERTIFICATE OF COMPLETI ON <br> UNITS

BT 1 Beginning Typing ............................................ 3
BT $19 \quad$ Occupational Work Experience .......................... 3
BT 20 Resume/Interview............................................. 1.5
BT 21 Working Relationships....................................... 1.5
BT 43 Medical Office Vocabulary................................... 5
BT 122 Skillbuilding .................................................. 1
BT 147 Medical Manager ............................................ 2
BT 148 Medical Insurance Forms................................ 3
BT 250 Office Skills Lab ............................................... 1
BT 270 Business Math \& 10 Key.................................... 2
BT 271 Business Grammar Fundamentals...................... 2
BT 272 Office Procedures .............................................. 1
BT 273 Filing ............................................................ 1
Total 23
Note: Sudents must maintain an average GPA of 2.0; demonstrate the ability to type 40 words per minute with $97 \%$ accuracy; and key 110 correct strokes per minute on the ten-key calculator.

MICROSOFT WORD - MAJ OR \#2323
Designed to assist students pursuing MOUS certification.
CERTIFICATE OF COMPLETION
UNITS
BT 28 Microsoft Word I ............................................ 1.5
BT 29 Microsoft Word II .............................................. 1.5
Total 3

CLERICAL TRAI NING
CERTIFICATE OF COMPLETION HOURS
СТСТС 370 Office Assistant ................................................... 600
CTCTC 372 Computerized Accounting .............................. 600
CTCTC 376 General Office Techniques .............................. 600
Total1800

## BUSI NESS MANAGEMENT - maj or \#2181

## ASSOCI ATE IN SCI ENCE DEGREE

Completion of 28 units including 19 units of the required core courses plus an additional nine units of elective courses are required for the associate in science degree.
CERTIFICATE OF ACHI EVEMENT
Acertificate of achievement in Business Management may be awarded for the successful completion of 20 units. The 20 units may include any combination of required core or elective courses listed below. A minimum grade of " $C$ " in each course is required.
REQUI RED CORE COURSES Units

BA5 Business Communications................................ 3
BA/MGMT 10 Introduction to Business ................................... 3
BA 18 Business and the Legal Environment................. 4
BA 30 Personal Finance.............................................. 3
BA/MGMT 33 Human Relations in Business............................. 3
$\begin{array}{cl}\text { *BA/MGMT } 40 & \text { Supervision and Leadership Skills, or } \\ \text { BA/MGMT } 43 & \text { Management and Tactical Planning ................. } 3\end{array}$ Total 19

ELECTIVES Units
BA/MGMT 31 Human Resources Management......................... 3
BA34 Investments ..................................................... 3
BA 38 Operation of the Small Business ......................... 3
*BAMMGMT 40 Supervision and Leadership Skills, or
BA/MGMT 43 Management and Tactical Planning .................. 3
BA51 Entrepreneurship............................................. 1
ACCTG 4A Principles of Financial Accounting .................... 4
BT 131 Applied Accounting............................................ 3
IS 15 Computer Concepts ........................................ 3
Either BA 40 or BA 43 may be taken as a required core or elective course.
Note: Asociate degree requirements are listed on page 28.

## CERTIFICATES OF COMPLETI ON

A certificate may be awarded for the successful completion of the courses listed under each of the five designated areas below. A minimum grade of " C " in each course is required, except as noted:
1.Business Finance and Investment - Major \#2271 Units

BA30 Personal Finance .............................................. 3
BA34 Investments ........................................................
100 Fresno City College
Associate Degree and Certificate Programs
2.Human Relations and Communications - Major \#2510Units
BA5 Business Communications .....  3
BA/MGMT 33 Human Relations in Business .....  3
3. Human Resources and Relations - Major \#2520 Units
BA/MGMT 31 Human Resources Management. .....  3
BA/MGMT 33 Human Relations in Business .....  3
4.Management and Supervision - Major \#2182 ..... Units
BAMGMT 40 Supervision and Leadership Skills .....  3
BAMGMT 43 Management and Tactical Planning .....  3
5.Small Business Management - Major \#2030 ..... Units
BA 38 Operation of the Small Business .....  3
BA 51 Survey of Entrepreneurship .....  1
ACCTG 4A Principles of Financial Accounting, or ..... 4
BT 31 Applied Accounting .....  3
*or equivalent
CABINETMAKING TECHNOLOGY - maj or
\#8311
This curriculum is designed to develop the student's ability in thefundamentals of woodworking tools, machines, materials, and processesused in constructing cabinets and furniture. The Cabinetmaking Tech-nology program directs its courses and training along practical linesas demanded by industry so that students, upon completion of theirtraining, are better qualified to obtain employment in cabinetmakingor related occupations.
ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester ..... Units
AT 10 Technical Computer Applications .....  2
AT 130 Industrial Math .....  3
CABNT 51A Basic Cabinet. .....  5
Total 10
Second Semester ..... Units
DRAFT 12 Board Draft Practices .....  3 ..... Total 8
SECOND YEAR
First Semester ..... Units
AT 21 Occupational Safety \& Health .....  2
CABNT 53A Furniture Construction .....  5
Total 7
Second Semester ..... Units
AT 40 Preparing for Employment Opportunities .....  3
CABNT 53B Wood Specialties .....  5

Recommended Electives: CABNT 19; CAM 10.
Note: Students qualify for the certificate of achievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 28 of the catalog, upon application, will be awarded the associate in science degree.

## CHICANO-LATI NO STUDI ES <br> FORMERLY CULTURAL STUDI ES, LA RAZA - MAJ OR \#7661

This program is designed to focus on Mexican-American history, heritage, and culture. Chicano-Latino Studies offers a broad interdisciplinary approach to the study of society and culture. The curriculum provides students with the strong academic background helpful to those planning careers in law, health, education, social work, business, and industry. Chicano-Latino Studies provides the knowledge and skills necessary to help students understand, communicate, and appreciate the rich cultural diversity in American society through the study of the Mexican-American community.
ASSOCI ATE IN ARTS DEGREE
REQUI RED CORE COURSES Units
CLS 11 Intro to Chicano-Latino Studies.......................... 3
CLS 12 Chicano History ................................................. 3
CLS/SOC 14 Sociology of the Chicano Community................ 3
CLS 21 Chicano Literature............................................ 3
Total 12
COURSE OPTI ONS: SELECT 8 UNITS Units
CLS 13 Politics and Chicano Community ....................... 3
CLS 17 Beginning Mexican Folklorico Dance ................. 3
CLS 18 Latin Jazz ..................................................... 3
CLS $20 \quad$ Chicano Art...................................................... 3
CLS 22 Pre-Columbian Art ............................................ 3
CLS/WSTS 24 La Chicana .................................................... 3
CLS 27 Adv Mexican Folklorico Dance ........................... 3
CLS/ANTHRO 28 Ancient Mexico ..................................................... 3
CLS/HST 29 History of Mexico .............................................. 3
CLS 30 The Mexican-American Family ......................... 3
CLS 33 Community Leadership ..................................... 3
Recommended Electives: Students are encouraged to include Spanish classes as part of their college program.
Note: An associate in arts degree will be awarded to the candidate who successfully completes a total of 60 units. The 60 units must include associate degree requirements and 20 units of course work as listed above. Associate degree requirements are listed in the Graduation Requirements section of this catalog. General Education requirements for transfer certification are listed in the Transfer Requirements section of this catalog.

## CHI LD DEVELOPMENT - MA or \#5615

## ASSOCI ATE IN SCl ENCE DEGREE AND <br> CERTI FICATE OF ACHI EVEMENT

The Certificate of Achievement and Associate in Science degree in Child Development are designed to prepare students to work with young children in a variety of early care and education settings. Completion of the Certificate of Achievement fulfills the child development coursework requirement for the California Child Development Permit at the Teacher level.

Completing the requirements for the Associate in Science degree will fulfill the educational requirements in Child Development, general education and the experience necessary to obtain the California Child Development Permit at the Teacher level which qualifies the student to work in a State of California funded child development center or preschool.
REQUI RED CORE COURSES UNITS
CHDEV 3 Creative Experiences for Young Children............. 3
CHDEV 6 Infant-Child Health and Safety ............................ 2
CHDEV 15 Diversity Issues in Early
Care and Education Programs ............................ 3
CHDEV $30 \quad$ Child Family and Community.............................. 3
CHDEV 37A Early Childhood Programs and Practices ............ 3
CHDEV 37B Early Childhood Programs and Practices ............ 3
CHDEV 39 Child Development.............................................. 3
Total 20
COURSE OPTIONS: SELECT 7 UNITS UNITS
CHDEV 2 Intro to Early Childhood Education .................... 2
CHDEV 4 Early Childhood Classroom ................................. 2
CHDEV 5 Parent Education ................................................ 3
CHDEV 7 Infant/Toddler Development \& Care .................... 3
CHDEV 7A Infant/Toddler Development \& Caregiving ......... 3
CHDEV 8 Programs for School-Age Child Care .................... 3
CHDEV 8A School Age Child: Growth \& Develop................... 3
CHDEV $9 \quad$ Music \& Movement Experiences for Young Children 2
$\begin{array}{ll}\text { CHDEV } 10 & \text { Science \& Math Experiences } \\ & \text { For Young Children ............................................ } 2\end{array}$
CHDEV 11 The Young Child w/ Special Needs....................... 3
CHDEV 12* Child Abuse .............................................................. 2
CHDEV 13* Child Sexual Molestation ..................................... 2
CHDEV 14* Youth Suicide ....................................................... 1
CHDEV 18 Child Development Internship ........................ 1-4
CHDEV 19 Vocational Work Experience ............................ 1-4
CHDEV 31 The Child In Society............................................ 3
CHDEV 34 Creative Cooking with Children ........................... 2
CHDEV/PSY 38* Lifespan Development......................................... 3
CHDEV 40A Administration of Early Care and Education Programs .....  3
CHDEV 40B Advanced Administration of Early Care and Education Programs .....  3
CHDEV 42 Child Nutrition .....  3
CHDEV 43 Children's Literature .....  3
CHDEV 44 High Scope Educational Approach .....  2
CHDEV 45 Adult Supv in Early Childhood Class. .....  2
CHDEV 46 Computers in Early Childhood Education .....  3
CHDEV 47A Emergent Literacy A .....  1
CHDEV 47B Emergent Literacy B .....  1
CHDEV 47C Emergent Literacy C .....  1
CHDEV 48 Children with Challenging Behaviors .....  3
CHDEV 150 Basic Child Growth and Development .....  3
CHDEV 151 Intro to Family Child Care .....  1
CHDEV 152 Quality Program in Family Child Care .....  1
CHDEV 163 Effective Parenting .....  1
CHDEV 165A Topics in Curriculum ..... 1-3
CHDEV 165B Topics in Family and Community ..... 1-3
CHDEV 165C Topics in Administration ..... 1-3
CHDEV 261 Intro to Foster Parenting .....  1
CHDEV 262 Independent Living Skills. ..... 1Note: Courses designated with an ${ }^{*}$ ) do NOTmeet the requirements for coursework for the California Child Development Permit, which is required foremploymentin Statefunded child development programs. Coursestakento fulfill the 24 units required by the Child Development Permit mustfocus predominately on the child under the age of 6 years.
SUGGESTED SEQUENCE OF COURSES
FIRST YEAR
First Semester Units
CHDEV 3 Creative Experiences for Young Children .....  3
CHDEV 30 Child, Family and Community. .....  3
CHDEV 39 Child Development .....  3
Total 9
Second Semester ..... Units
CHDEV 6 Infant-Child Health and Safety ........................... 2
CHDEV 15 Diversity Issues in Early Care and Education Programs .....  3
CHDEV 37A Early Childhood Programs and Practices .....  3
Child Development Course Options .....  2
SECOND YEAR
First Semester ..... Units
Child Development Course Options. .....  5

| Second Semester |  |
| :--- | ---: |
| CHDEV 37B | Early Childhood Programs and Practices.......... 3 |
| Total 27 |  |

Note: An associate in sciencedegree will beawarded on the successful completion of 60 units, including General Education requirements.

## CHILD DEVELOPMENT ASSOCI ATE TEACHER -

MAJ OR \#5614
A14-unit certificate program designed for individuals who desire a short-term intensive training program in Child Development. In a fivemonth period, students will complete course work and job experience and become qualified to provide instruction in child development centers and family child care homes as well as to be qualified to obtain a California Child Development Permit at the Associate Teacher level.

| CERTIFICAT | COMPLETION UNITS |
| :---: | :---: |
| CHDEV3 | Creative Experiences for Children .................... 3 |
| CHDEV6 | Child Care Health and Safety ........................ 2 |
| CHDEV 18 | Child Development Internship or. |
| CHDEV 19 | Occupational Work Experience ........................ 3 |
| CHDEV 30 | Child, Family and Community ....................... 3 |
| CHDEV 39 | Child Development or .. |
| CHDEV 150 | Basic Child Development.............................. 3 |

## FAMI LY CHI LD CARE - MAJ OR \#557

This program is designed to meet the training needs of family child care providers, individuals who are licensed to care for children in their homes. The following course of study will also prepare the student to meet the course work requirements for the California Child Development Permit at the Associate Teacher level.
CERTIFICATE OF COMPLETION UNITS
CHDEV 3 Creative Experiences for Children ....................... 3
CHDEV6 Child Health and Safety................................... 2
CHDEV 30 Child, Family and Community.......................... 3
CHDEV 39 Child Development or
CHDEV 150 Basic Child Development................................. 3
CHDEV 151 Family Child Care Management ........................ 1
CHDEV 152 Quality Program in Family Child Care .............. 1
Total 13

## SUGGESTED SEQUENCE OF COURSES

| First Semester |  | Units |
| :--- | :--- | :--- |
| CHDEV 39 | Child Development or |  |
| CHDEV 150 | Basic Child Development.................................. 3 |  |
| CHDEV 151 | Family Child Care Management ...................... 1 |  |
| CHDEV 152 | Quality Program .......................................... 1 |  |
|  |  | Total |


| Second |  | Units |
| :---: | :---: | :---: |
| CHDEV3 | Creative Experiences for Young Children.. | ........ 3 |
| CHDEV6 | Child Health and Safety ................ |  |
| CHDEV 30 | Child, Family and Community........... | ........ 3 |

## FOSTER CARE - MAJ OR \#5880

This 11-unit program is designed to train foster parents in specialized areas, acquiring knowledge and skills necessary for caring for special needs children.

| CERTIFICATE OF COMPLETION | UNITS |
| :--- | :--- | :--- |
| CHDEV5 | Parenting Skills ............................................................................................................................................................................................................... 1 |

Total 11

## Qualifications to Teach in Early Care and Education Programs

Privately Operated Center Based Programs
Candidates may meet the Califormia State Department of Social Service requirements by completion of 12 units of Child Development course work. The 12 units should include at least one course from each of the following:

1. Child Development/Psychology 39 or Child Development 150 (DSS*1)
2. Child Development 30. (DSS*2))
3. Child Development $2,3,4,4,10,37 \mathrm{~A} / \mathrm{B}, 43$ or 44 (DSS*3)

Students who plan to work with infants must complete 12 units of child development including:

Child Development 7, Infant/Toddler Development (DSS*4)
Students who plan to work with children ages 6 - 12 years must complete 12 units including:

Child Development 8, Programs for School Age Child Care, or Child
Development 8A, School Age Child: Growth and Development. (DSS*5)
Students who wish to qualify as a Child Development Center Director must complete Child Development 40A (DSS*6) in addition to the required 12 units.
Note: The Child DevelopmentDepartmentrecommends that students take Child Development 6, Child Health and Safety, 2 units (DS*7). Sate law requires that an individual who has completed Child Care Health and Safety Training mustbe on the premises of a child development center at all times. Child Development 6 fulfills shis requirement.

The college transcript provides the documentation necessary for the individual's academic qualifications to teach in the privately operated center based program.

## Publicly Funded Early Care and Education Centers

The California Commission on Teacher Credentials issues the Child Development Permit which is required for employment in children's centers and preschools that receive funding from the State of California. Each level of the Child Development Permit Matrix requires specific coursework to be completed with a grade of " $C$ " or better and work experience in an early care and education program (birth to eight years.) Work experience requirements are noted at each level.

The applicant files a completed application verifying the following information to the California Commission of Teacher Credentials. Further information on the application process, including sources of funding to pay for the application fee, may be obtained from the Child Development Department.
Associate Teacher level: 12 units
(Experience: 50 days of $3+$ hours per day within 2 years of application)

Child Development 150 or 39
Child Development 30
Child Development 3....
plus 3 additional units of child development coursework
Teacher level: 40 units
(Experience: 175 days of $3+$ hours per day within 4 years of application)

24 units of Child Development:
Child Development 150 or 39
Child Development 30
Child Development 3....
plus 15 additional units of child development courses
16 units of general education including one course that meets FCC
graduation requirements from each of the following areas:
English
Math or Science
Social Sciences
Humanities

* Alternativequalifications: an ASdegree in Child Development whichincludes one supervised field experience course. No work experience required.
* Master Teacher level:

Experience: 350 days of experience within 4 years, including 100 days of supervising adults)

Complete the Teacher level requirements listed above, plus:
Child Development 45
6 units of specialized course work in Child Development
(A list of Fresno City College specializations may be obtained from the Child Development Department)

## *Site Supervisor level:

(Experience: 350 days of $3+$ hours per day within 4 years, including at least 100 days supervising adults)
An AA or AS degree with 24 units in child development, including the core courses,
plus: Child Development 40A, Child Development 40B, Child Development 45
*Alternative qualifications for Master Teacher and Site Supervisor levels:

BA degree or higher with 12 units of child
development
Plus a supervised field work experience course (Child Development
37A or B; Child Development 18, Child Development 7)

## Family Child Care

Afamily child care provider is an individual who is licensed to care for up to six children in his/her home. State law requires that the family child care provider must complete 15 hours of child health and safety. This requirement is satisfied by Child Development 6, Child Care, Health and Safety, 2 units. There are currently no additional educational requirements for family child care providers, however, the Child Development Department recommends completion of the Family Child Care Certificate Program.

## Elementary School Teaching Credential

Students wishing to teach in an elementary school must take the Liberal Studies (Credential) major.

Please note that most child development classes listed above do not count toward the Liberal Studies (Credential) major.

Students wishing to switch majors from child development to the liberal studies credential must realize that most of their child development units will not count toward the Liberal Studies (Credential) major. This change in majors would therefore entail more course work and a more extended period of training for this profession.
This material has been prepared as carefully as possible. Fresno City college does not assume responsibility for inaccuracies or changes in the information contained herein after the date of publication.

## COMPUTER AIDED DRAFTING AND DESIGN

FORMERLY DRAFTI NG-MAJ OR \#3051
The field of drafting is one which serves a wide and varied number of vocations, professions, and industries. The computer aided drafting and design program directs its courses and training along practical lines as demanded by industry so that the students upon completion of their training are better qualified to obtain employment in the fields of industry.

```
ASSOCIATE IN SCI ENCE DEGREE AND
CERTI FICATE OF ACHIEVEMENT
FIRST YEAR
First Semester
                                    Units
AT 10 Technical Computer Applications ....................... }
CADD 14 Introduction to Computer Aided Drafting........... }
```

| DRAFT 12 | Board Drafting Practices ................................. 3 |
| :---: | :---: |
| DRAFT 160 | Mathematics of Drafting................................. 3 |
|  | Total 11 |
| Second SemestARCH 20 | er Units |
|  | Basic Graphics.......................................... 2 |
| AT 31 | Technical Reports ..................................... 3 |
| AT 120 | Industrial Science......................................... 3 |
| CADD 24 | Advanced Computer Aided Drafting and Design . 3 |
|  | Total 11 |
| SECOND YEAR |  |
| First Semester | Units |
| ARCH 32 | Strength of Materials................................. 3 |
| ARCH 42 | Steel and Timber........................................ 3 |
| CADD 34 | Solid Modeling and Design ............................. 3 |
|  | Total 9 |
| Second SemestAT 40 | ter Units |
|  | Preparing for Employment Opportunities .......... 3 |
| CADD 40 | Civil Drafting Applications .............................. 3 |
| CADD 44 | Computer Aided Design and Computer Aided <br> Manufacturing $\qquad$ |

Recommended Elective: DRAFT 19.
Note: Sudents planning to receive the AS degree must meet the associate in science degreer requirements listed on page 28.

## COMPUTER AIDED MANUFACTURING

FORMERLY MANUFACTURI NG TECHNOLOGY \& MACHINIST-
MAJ OR \#8271
The two-year AS. degree/ certificate Computer Aided Manufacturing program is designed for students who have a strong interest in handson experience both in the classroom as well as in industry. Core courses ensure students with a knowledgeable foundation using Fresno City College for the Computer Aided Design (CAD) 2D and 3D, Computer Numerical Control Programming (CNC), Machine Operation, a variety of High Tech Materials, Computer Application and Computer Measuring Instrument. AutoCAD, AutoCAD LT, Solid Works, Microsoft Office and MasterCAM software are currently used. The program is diverse: CNC Vertical Milling Centers, CNC Lathes and CNC Routers 3 axis and 5 axis. These software and machines give students the most experiences possible, which will lead to more job opportunities in the local workforce.

## ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

FIRST YEAR
First Semester Units
AT 10 Technical Computer Applications ...................... 2

| AT 130 | Industrial Mathematics or, |
| :---: | :---: |
| MATH 101 | Elementary Algebra (or higher level) ................. 3 |
| CAM 10 | CNC Mill Programming \& Operation I .............. 3 |
| DRAFT 12 | Board Drafting Practices ................................ 3 |
|  | Total 11 |
| Second Semest | er Units |
| AT 21 | Occupational Safety .................................... 2 |
| CADD 14 | Introduction to Computer Aided Drafting........... 3 |
| CAM 20 | CNC Mill Programming \& Operation II ............. 6 |
|  | Total 11 |
| SECOND YEAR |  |
| First Semester | Units |
| CADD 24 | Advanced Computer Aided Drafting \& Design ..... 3 |
| CADD 34 | Solid Modeling and Design ........................... 3 |
| CAM 30 | CNC Mill Programming \& Operation III ............ 6 |
|  | Total 12 |
| Second Semester | er Units |
| AT 40 | Preparing for Employment Opportunities .......... 3 |
| CAM 40 | CNC Lathe Programming \& Operation .............. 3 |
| CAM 50 | Special Projects and Portfolio Presentations....... 3 |
| WELD 1 | Exploring Welding/Metals or ........................ 3 |
| WELD 2A | Introduction to Welding Technology .............. 3-5 |
|  | Total 12-14 |

Recommended electives: Reedley College courses: MFGT 37A, 37B. These courses are recommended for students who have not yet practiced conventional machining.
Associate degree requirements are listed on page 28.

## CONSTRUCTION - maj or \#8091

The construction curriculum is designed to offer students hands-on training which will prepare them for entry into the construction industry as an advanced apprentice.

## ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT <br> FI RST YEAR <br> First Semester Units <br> ARCH 21 Materials of Construction .................................. 3 <br> AT 10 Technical Computer Applications ...................... 2 <br> AT 21 Occupational Safety \& Health ........................... 2 <br> AT 130 Ind Math ........................................................ 3 <br> CONS 50A Basic Resident .................................................. 3



| Spanish | Any Level ...................................................... 3-4 |
| :---: | :---: |
| WSTS 10 | Changing Roles of Women ............................... 3 |
| CERTIFICATE OF COMPLETI ON |  |
| REQUI RED | E COURSES Units |
| CRIM 20 | Introduction to Corrections .............................. 3 |
| CRIM 21 | Correctional Report Writing............................... 3 |
| COURSE OPTI ONS: SELECT A MINIMUM OF 6 UNITS Units |  |
| CRIM 6 | Concepts of Criminal Law ................................. 3 |
| CRIM 23 | Correctional Interviewing \& Counseling ............ 3 |
| CRIM 24 | Control and Supervision in Corrections .............. 3 |
| CRIM 25 | Legal Aspects of Corrections .............................. 3 |

*Choose from AFRAM1, 2, or 4; AMIND 31, 32, 33, or 34; ASAMER 1 or 15; or CLS11, 12, 13, 14, 24, 28, 29, or 30.
+Also fulfills degree or transfer requirements.
Notes: 1. An associate in science degree will be awarded to any candidate
who successfully completes a minimum of 60 units.
2. ENGL 1A and HLTH 1 have been mandated by the state as core courses in the Correctional Science Option.

CRI MI NOLOGY OPTI ON - MAJ OR \#7700

## ASSOCl ATE IN SCI ENCE DEGREE AND

 CERTIFICATE OF ACHIEVEMENTTOTAL UNITS REQUIRED ............................................ 39
REQUI RED CORE COURSES Units
$\begin{array}{ll}\text { AT } 10 & \text { Technical Computer Applications, or } \\ \text { IS } 12 & \text { Computer Literacy ..........................................2-3 }\end{array}$
CRIM 1 Introduction to Criminology ............................... 3
CRIM $4 \quad \begin{aligned} & \text { Principles and Procedures } \\ & \text { of the Justice System ...................................... } 3\end{aligned}$
CRIM 5 Community Relations .......................................... 3
CRIM 6 California Criminal Law...................................... 3
CRIM 12 Criminal Justice Communications ...................... 3
*CRIM 13 The Constitution and Your Individual Rights..... 3
CRIM 15 Police Ethics ........................................................ 3
CRIM 16 Victimology......................................................... 3
*ENGL 1A Reading and Composition ................................... 4
Total 30-31
COURSE OPTIONS: SELECT 9 UNITS Units
$\begin{array}{ll}\text { *AFRAM } 1 & \text { African-American Culture, or } \\ \text { *AFRAM } 4 & \text { African Civilization ............................................ } 3\end{array}$
$\begin{array}{cl}\text { *AMIND } 31 & \text { American Indian Culture, or } \\ \text { *AMND } 34 & \text { American Indian Contemporary Society .............. } 3\end{array}$
*CLS 11 Introduction to Chicano-Latino Studies, or
*CLS/SOC 14 Sociology of the Chicano Community................. 3
*PSY 2 General Psychology ............................................. 3
*SOC 1A Introduction to Sociology.................................... 3

*SOC 2 American Minority Groups .....  3
*WSTS $10 \quad$ Changing Roles of Women .....  3
*Also fulfills degree or transfer requirements
Note: An associate in science degree will be awarded to any candidate whosuccessfully completes a minimum of 60 units. The 60 -unit minimummustinclude associate degreerequirements and 39 units of course worklisted above.
LAW ENFORCEMENT OPTI ON - MAJ OR \#8872
ASSOCI ATE IN SCI ENCE DEGREE ANDCERTI FICATE OF ACHIEVEMENTTOTAL UNITS REQUIRED36
REQUIRED CORE COURSES ..... Units
AT 10 Technical Computer Applications, or
IS 12 Computer Literacy ..... 2-3
CRIM 1 Introduction to Criminology .....  3
CRIM 3 Legal Aspects of Evidence .....  3
CRIM 5 Community Relations.. .....  3
CRIM 6 California Criminal Law. .....  3
CRIM 7 Concepts of Enforcement Services. .....  3
CRIM 8 Criminal Investigation .....  3
CRIM 11 Juvenile Delinquency .....  3
CRIM 12 Criminal Justice Communications . .....  3
*CRIM 13 The Constitution and Your Individual Rights .....  3
CRIM 15 Introduction to Police Ethics. .....  3
*ENGL 1A Reading and Composition .....  4
Total 36-37
COURSE OPTI ONS: SELECT 9 UNITS ..... Units
*AFRAM 1 African-American Culture, or .....  3
*AFRAM 4 African Civilization .....  3
*AMIND 31 American Indian Culture, or
*AMIND 34 American Indian Contemporary Society .............. 3*CLS 11 Introduction to Chicano-Latino Studies, or
*CLS/SOC 14 Sociology of the Chicano Community .....  3
*PSY 2 General Psychology .....  3
*SOC 1A Introduction to Sociology .....  3
*SOC 2 American Minority Groups .....  3
*WSTS $10 \quad$ Changing Roles of Women .....  3
*Also fulfills degree or transfer requirements
Note: An associate in science degree will be awarded to any candidate who successfully completes a minimum of 60 units. The 60 -unit minimum mustinclude associate degreerequirements and 45 units of course work listed above.

## Students Transferring from the Police Academy

Candidates who have completed the Basic Academy or the Reserve Module " $D$ " program may request to waive 6 units from the following courses in the Criminology degree program: Criminology 1, 6, 7, 12. To process this, candidates must complete a course waiver form and
attach a copy of the Certificate of Completion from the Police Academy or a copy of their transcript. Forms are available in the Social Science Division office

The waiver form is then signed by the dean of Social Science and by the dean of Admissions and Records.

## PRE-ACADEMY TRAI NI NG OPTI ON - MAJ OR \#8923

Non-affiliated students who intend to undertake training through the Police Academy can enhance their chances of success by taking the Pre-Academy Certificate of Achievement program listed below.
CERTI FICATE OF ACHI EVEMENT Units
ENGL 1A Reading and Composition ................................. 4
CRIM 3 Criminal Evidence ................................................ 3
CRIM 4 Prin and Procedures of the Justice System .......... 3
CRIM 6 California Criminal Law....................................... 3
CRIM 8 Criminal Investigating ........................................ 3
CRIM 12 Criminal Justice Communications ....................... 3
CRIM 13 The Constitution and Your Individual Rights..... 3
CRIM 15 Police Ethics ........................................................... 3
Total 25
Note: This certificate of achievement program is strongly recommended. However, it is not a prerequisite for admission to the Police Academy.
For more information on the Police Academy, call 442-8264.

## DANCE- MA OR $\# 5390$

The associate degree in dance provides a base of training in dance technique and practical experience in concert performance and production work as well as a theoretical background in dance composition. Possible careers include choreographer*, dance director, dance historian*, dancer, dance teacher*, dance therapist*, fitness/aerobic instructor, movement notator, performer, reconstructor, and recreation leader.
*Bachelor degree or higher required
ASSOCI ATE IN ARTS DEGREE
TOTAL UNI TS REQUI RED 36

REQUIRED CORE COURSES Units
DANCE 12 or 13* Ballet/Int Ballet ........................................................ 2
DANCE 14 or 5* Beg/Int Jazz Dance Technique............................. 1
DANCE 20A Modern Dance Composition ................................ 3
DANCE 20B Intermediate Modern Dance Composition ........... 3
DANCE 21 Dance Workshop ............................................... 4
DANCE 22 Dance Theatre ...................................................... 6
DANCE 30 Dance Appreciation ............................................. 3
MUS 3 Music Fundamentals................................................ 3
PE 17 Hatha Yoga ......................................................... 1
Total 26
*Class level dependent on entry-level experience.
NONTRANSFER (PROFESSIONAL) PROGRAM
Students planning a career in dance upon leaving Fresno City College are urged to complete additional courses in physical education, music and theatre arts.

| Recommended Courses | Units |
| :--- | :--- | ---: |
| MUS 12 | Music Appreciation .............................................. 3 |
| PE 20 | Care and Prevention of Athletic Injuries............ 3 |

At least one of the following courses:
TA12 Fundamentals of Interpretation ........................... 3
TA 41 Beginning Acting ................................................ 3
At least four units from:
TA 25 Theatre Crafts 1 ............................................... 4-6
TA 27 Introduction to Scenic \& Lighting Design ........... 4
TA 28 Introduction to Stage Makeup ............................. 2
TA 35 Costume Crafts ................................................. 4-6
Note: The associate degree additionally requires the completing of the requirements listed on page 28 with a 2.0 or better GPA

## TRANSFER PROGRAM

Most four-year colleges and universities will require a dance audition to determine level of placement upon transfer. An effective program of study can best be obtained by consulting directly with the department of the target institution as early as possible.

Course Options: Select 13 units
ART 2 Art Appreciation
ART $3 \quad$ Two-Dimensional Design
ART 4 Three-Dimensional Design
BIOL $20 \quad$ Human Anatomy
DANCE 10 Modern Dance
DANCE 11 Introduction to Social Dance
DANCE 12 Beginning Ballet
DANCE 13 Intermediate Ballet
DANCE 14 Beginning Jazz Dance Technique
DANCE 15 Intermediate Jazz Dance
DANCE $16 \quad$ Beginning Tap Dance
DANCE 17 Beginning Mexican Folklorico Dance
DANCE 18 Intermediate Tap Dance
DANCE 23 Selected Topics in Dance Workshop
DANCE 24 Selected Topics in Dance Theatre
DANCE 27 Advanced Mexican Folklorico Dance
DANCE 42 African Dance and Percussion
MUS 12 Music Appreciation
PE $20 \quad$ Care and Prevention of Athletic Injuries

## DENTAL HYGI ENE - MAJ OR \#4580

The dental hygienist provides dental health education, promotes and encourages the preventive aspects of dental care, removes deposits and
stains from teeth, exposes and processes dental x-rays, and generally assumes responsibilities in the dental office. Completion of the program leads to an associate in science degree. After completion of the program and National Board examination, graduates will be eligible to apply for and take the California State Board examination for licensing dental hygienists.

Dental hygiene students will be required, as part of the total dental hygiene program, to participate in extracurricular activities. These activities could include visitation to a dental school for observation, clinical practice at a rural health facility, community dental health projects, hospital clinical practice, and other field excursions of educational value.

## Application Requirements

Enrollment is limited in the dental hygiene program. Minimum qualifications for selection must be met. There are no restrictions as to age, race, sex, or marital status. Minimum prerequisite requirements for application to the program are the following:

1. Have graduated from high school or have an average score of 45 on the General Educational Development (GED) test.
2. Have a minimum cumulative college grade point average (GPA) of 2.70.
3. Have completed Biology 24, Human Anatomy and Physiology (or equivalent), with a grade of " $C$ " or better. Biology 24 may be replaced by Biology 20, Human Anatomy, and Biology 22, Human Physiology, ( or equivalents) each with a grade of " C " or better.
4. Have completed English 125, Writing Skills for College (or equivalent); Chemistry 2Aor 3A, Introduction to General Chemistry; Biology 31, Microbiology; Math 101, Elementary Algebra, or another more advanced math course; Chemistry 3B, Organic and Biological Chemistry; Food and Nutrition 40, Nutrition, (or equivalents to these courses) with grades of "C" or better.
5. Have completed an Academic Summary Form for the Dental Hygiene Program.
6. Have no physical impairment that would preclude the performance of all dental hygiene duties.
7. Be in good physical and mental health.

Note: SPEECH 1 or 2 is a prerequisite for DH 3A a first semester course. Successful applicants must complete one of these courses prior to beginning the program.
In addition, PSY 2 is a course prerequisite to DH 7A and SOC 1A is a course prerequisite to DH 7 B (second year course).

## Academic Requirements

All program entry requirement courses listed above must be completed with a grade of " $C$ " or better. In order to be eligible to take the California State Dental Hygiene Board examination, all other courses leading to the associate degree must also be completed with a grade of " $C$ " or better.

Students in the dental hygiene program must earn a "C" grade or better (or a "Credit" grade when applicable) in all dental hygiene courses. Less than a "C" or a "Credit" grade in any dental hygiene course requires that the course be repeated before continuing with the major. Courses must be repeated in their entirety. Courses may be repeated once only.

Safe professional practice is necessary for retention of students in the program. If a student demonstrates that he/she is unsuited to the profession or is not progressing satisfactorily, based on the professional judgment of the faculty, he/she may be asked to withdraw from the program.

## Change of Name, Address, and/ or Telephone Number

Applicants and dental hygiene students must keep the Dental Hygiene Office informed of any change in name, address, and/or telephone number. Failure of applicants to inform the Dental Hygiene Office of this vital information may result in loss of entry into the program.
ASSOCI ATE IN SCI ENCE DEGREE
Dental Hygiene Course Sequence (must be completed with grade of "C" or better.)
FI RST YEAR

| First Semester | Units |
| :---: | :---: |
| DH3A | Pre-Clinical Dental Hygiene Tech ...................... 4 |
| DH4 | Oral Radiology ................................................ 2 |
| DH 1A | Oral Biology.................................................. 2 |
| DH 10 | Head \& Neck Anatomy ....................................... 2 |

Total 10
Second Semester Units
DH 5A Clinical Dental Hygiene...................................... 3
DH 6A Dental Emergencies............................................. 1
DH 2 Dental Materials and Assisting ............................ 2
DHIB General and Oral Pathology ................................ 4
DH 8A Patient Management........................................... 1
DH 11 Local Anesthesia .................................................. 1
Total 12
SECOND YEAR
First Semester Units
DH 1C Periodontology ................................................... 2
DH 7A Community Dental Health I ................................ 2
DH 6B Pharmacology ..................................................... 2
DH 5B Clinical Dental Hygiene....................................... 5
DH 3B Advanced Seminar Topics .................................... 2
Total 13
 Total 10
Note: All application requirements, program requirements and selection criteria are subject to change. Students will enter the selection pool based on the current catalog or catalog supplement. Contact a Fresno City College health career counselor every semester for current information.

DRAFTING - see computer alded drafting and
DESIGN

ELECTRICIAN - see electrical systems
TECHNOLOGY

## ELECTRICAL SYSTEMS TECHNOLOGY -

FORMERLY ELECTRONIC TECHNOLOGY - MAJ OR \#8171
Electrical Systems Technology provides an opportunity for students to prepare for employment in the electronics/electrical industry. Spe cific occupational preparation is provided in the following program.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
FI RST YEAR
First Semester Units
AT 10 Technical Computer Applications ...................... 2
EST 51 Fundamentals of Electronics ............................ 3
EST 52 Circuit Analysis ............................................... 3
EST 54 Integrated Devices ........................................... 3
Total 11
Second Semester Units
EST 53 Lab Safety Practices....................................... 1
EST 55A Digital Concepts............................................... 3
EST 96 National Electrical Code.................................... 3
Total 7
SECOND YEAR
First Semester Units
EST 57 Communication Fundamentals .......................... 8
EST 58 Programmable Logic Controllers ....................... 3
EST 61 Networking Essentials ....................................... 3 Total 14

Second Semester Units
AT 40 Preparing for Employment Opportunities $\qquad$

EST 56 Industrial Electronics .................................... 8
EST 59 Instrumentation Systems.................................. 3
Total 14
Note: An associate in science degree will be awarded to any candidate who successfully completes a minimum of 60 units. The 60 unit minimum mustinclude associate degreerequirements and 46 units of course work listed above.

## CI SCO CERTI FICATI ON - MAJ OR \# 8174

This option is to prepare students for the Cisco Certified Network Associate (CCNA). By completing this option, a student will have basic knowedge of networking hardware, including routers.
CERTIFICATE OF COMPLETION Units
EST 61 Networking Essentials...................................... 3
EST 62 Router Theory and Technology .......................... 3
EST 63 Advanced Routing and Switching ...................... 3
EST 64 Advanced Networking and Management............. 3
Total 12

## CI SCO CCNP PREPARATI ON - MA OR \# 8165

This option is to prepare students for the Cisco Certified Networking Professional (CCNP) certification test. By completing this option, a student will have basic knowledge of networking hardware, including routers and switches.

CERTIFICATE OF COMPLETION Units
EST 65 Advanced Routing Protocols .............................. 3
EST 66 Remote-Access Network .................................... 3
EST 67 Multi-Layer Switching ..................................... 3
EST 68 Network Troubleshooting .................................. 3
Total 12

## INDUSTRIAL CONTROL SYSTEMS - MA OR \#8112

| CERTI FICATE OF COMPLETI ON |  | Units |
| :--- | :--- | :--- |
| AT 10 | Technical Computer Applications ...................... 2 |  |
| EST 72 | Industrial Motor Control ................................ 3 |  |
| EST 73 | Industrial Electronic Fundamentals................ 3 |  |
|  |  | Total |

## NETWORKING/ COMPUTER TECHNICIAN - MAJ OR \#

 8172This option is designed to meet the training needs for qualified en-try-level microcomputer and networking technicians.
ASSOCI ATE IN SCI ENCE DEGREE AND
CERTI FICATE OF ACHI EVEMENT
TOTAL UNITS REQUI RED ......................................... 28
REQUI RED CORE COURSES Units
*BT 21 Resume/ Interview........................................... 1.5
BT 112/ENGL 59 Business English .............................................. 2
EST/IS 19 Occupational Work Experience ......................... 2
EST 50 Introduction to Electronics ................................ 2.5
EST 55A Digital Concepts................................................ 3
EST $60 \quad$ PC and LAN Maintenance................................. 3
EST 61 Networking Essentials ....................................... 3
IS 15 Computer Concepts ........................................... 3
**IS 17 Data Communications....................................... 3
IS 22 Computer Operating Systems.............................. 3
IS 30 Fundamentals of Networking ............................. 3
Total 30.5
SUGGESTED SEQUENCE OF COURSES
$\begin{array}{ll}\text { Fall Semester } \\ \text { EST } 50 & \text { Introduction to Electronics Units } \\ \end{array}$
EST $60 \quad$ PC and LANMaintenance................................... 3
EST 61 Networking Essentials ...................................... 3
IS 15 Computer Concepts ......................................... 3
**IS 17 Data Communications..................................... 3
Total 14.5
Spring Semester
Units
*BT 20 ResumeInterview........................................... 1.5
*BT 21 Working Relationships...................................... $1 .{ }^{2}$
BT12/ENGL 59 Business English ............................................ 2
EST/IS 19 Occupational Work Experience ......................... 2
EST 55A Digital Concepts.............................................. 3
IS 22 Computer Operating Systems............................. 3
IS $30 \quad$ Fundamentals of Networking ............................ 3
Total 16
*AT 40 can be substituted for BT 20 and BT 21 .
**EST 57 may be substituted for IS17.
Note: Associate degree requirements are listed on page 28.

## ENGI NEERI NG - MAJ OR \#3010

## Recommended Transfer Program

The following curriculum satisfies the lower division requirements of most colleges and universities that offer degrees in engineering. However, the student should consult with an advisor and compare his/her planned program with that listed in the catalog of the senior institution to which he/she expects to transfer.
Fresno City College offers courses for fulfilling prerequisites which have not been completed in high school.

## ASSOCI ATE IN SCI ENCE DEGREE

First Semester
ENGR 2 Graphics ........................................................ 4
MATH 5A Math Analysis I .....  4
CHEM 1A General Chemistry .....  5
ENGR 10 Intro to Engineering .....  2
General Education .....  2
Second Semester ..... UnitsTotal 17
CSCI 20 Programming Concepts \& Method I .....  2
MATH 5B Math Analysis II
*CHEM 1B General Chemistry ..... 5
General Education .....  3
PHYS 4A Physics for Scientists \& Engineers .....  4
Third SemesterTotal 18
MATH $6 \quad$ Math Analysis III .....  4
PHYS 4C Physics for Scientists \& Engineers .....  4
ENGL 1A Reading \& Composition .....  4
ENGR 8 Statics. .....  3
**Special Subject .....  3
Total 18
Fourth Semester ..... Units
MATH 7 Advanced Engineering Math .....  4
PHYS 4B Physics for Scientists \& Engineers .....  4
POLSCI 2 American Government .....  3
ENGR 32 Materials of Engr Construction .....  3
General Education .....  4

Notes: 1. See page 35 for General Education requirements.
2. *California State University, Fresno no longer requires Chemistry 1B or Chemistry 8.
3. ${ }^{* *}$ California State University requires for Civil and Agricultural Engineers: Engineering 1A, Plane Surveying; for Mechanical and Industrial Engineers: Engineering 11, Manufacturing Processes.

## ENGLISH - MAJ OR \#5300

The English degree program is intended to offer students lower division exposure to subjects they will study as English majors in four-year colleges or university programs and/or to prepare students for entry into a variety of career options requiring expertise in the English language and literature.

## ASSOCI ATE IN ARTS DEGREE <br> MAJ OR CORE <br> FI RST YEAR <br> First Semester Units <br> ENGL 1A Reading and Composition ................................ 4 Total 4 <br> Second Semester Units <br> ENGL 1B Introduction to the Study of Literature................ 3 <br> ENGL 3 Critical Reading and Writing............................. 3 <br> Total 6

MAJ OR COURSE OPTI ONS
SECOND YEAR
Section A
Select one of the course sequences ( 6 units total) from the following list:
ENGL 44A Masterpieces of World Literature, and
ENGL 44B Masterpieces of World Literature or
ENGL 46A English Literature to 1800, and
ENGL 46B English Literature from 1800 to the Present or
ENGL 48A An Introduction to American Literature before the Civil War, and
ENGL 48B An Introduction to American Literature Since the Civil War .. 6

## Section B

Select a minimum of six (6) additional units from the following list
(Courses taken to meet Section A above cannot be used to fulfill Section B):

ENGL 12 The Bible as Literature...................................... 3
ENGL 15A Creative Writing: Poetry................................... 3
ENGL 15B Creative Writing: Fiction................................... 3
ENGL 15C Creative Writing: Playwriting.............................. 3
ENGL 15D Creative Writing: Autobiography ........................ 3
ENGL 40 Critical Thinking about Literature ..................... 3
ENGL 42 Clasic Myths .................................................... 3
ENGL 44A World Literature............................................... 3
ENGL 44B World Literature................................................ 3
ENGL 45 Contemporary World Literature........................... 3
ENGL 46A English Literature to 1800 ................................ 3

ENGL 46B English Literature from 1800 to the Present....... 3
ENGL 48A An Introduction to American Literature to $\quad$ World War I .................................................. 3
ENGL 48B An Introduction to American Literature from World War I to the Present.............................. 3
LING 10 Introduction to Language ................................... 3
Note: An associate in arts degree in English will be awarded to any candidate who succesfully completes a total of 60 units which include associate degree requirements and a minimum of 22 units of course work as listed above. Associate degree requirements are listed on page 28. General Education requirements for transfer certification are listed on page 35.
$*$ Speech 1 or 2 if on a 4 -year transfer track.
$* *$ Math 103 if on a 4 -year transfer track.
$* * *$ English 1Aif on a 4 -year transfer track.

## CERTIFICATE OF ACHIEVEMENT

First Semester Units

CHEM 3A Intro to General Chemistry ................................ 4
ENVT 51 Intro to Environmental Technology .................... 3
ENVT 52 Industrial Pollution ......................................... 3
ENVT 53 Health Effects ................................................... 3
GEOL 1 Physical Geology............................................. 4 Total 17
Second Semester Units
BIOL 51 Elem Human Anatomy and Physiology ............... 4
ENVT 54 Hazardous Waste Management Applications....... 4
ENVT 55 Safety and Emergency Response ........................ 4
ENVI 56 Hazardous Materials Management $\quad$ Applications ................................................ 4
Total 16

## FASHI ON MERCHANDISING

HOME ECONOMICS/ MARKETING - MAJ OR \#2391
This curriculum is designed to prepare students for initial employment and advancement in the field of Fashion Merchandising. It also prepares students for upper divisional course work towards a bachelor's degree.
ASSOCI ATE IN SCI ENCE DEGREE AND
CERTIFI CATE OF ACHI EVEMENT
REQUI RED CORE COURSES
FM27 Introduction to Fashion Industry....................... 3
FM 22 Fashion Analysis ............................................ 3
FM25 Professional Image......................................... 3
FM26/TA 16 Fashion History .............................................. 3
*FM $19 \quad$ Work Experience .............................................. 2
FM/HEC 20 Textiles ............................................................ 3
FM 28 Visual Merchandising ...................................... 3
FM21 Salesmanship ................................................. 3
FM 29 Modeling and Fashion Promotion ...................... 3
FM/MKTG 14 Retailing ........................................................ 3 Total 29
COURSE OPTI ONS: SELECT 6 UNITS Units
HEC 1 Careers and Professional Development in Home Economics....................................... 3
HEC 24 Beginning Sewing............................................ 3
HEC 26 Intermediate Sewing ........................................ 3
MKTG 10 Marketing.............................................................
MKTG 12 Advertising ...................................................... 3
BT 20 Resume/Interview ..... 1.5
BT 21 Working Relationships ..... 1.5
BT 107 or 108 WordPerfect ..... 1.5
IS 12 Computer Literacy .....  2
IS 15 Computer Concepts .....  3
It is recommended that students establish eligibility for ENGL 125 and126 or ENGL 153 or ESL 67 and 68.*or 180 hours of field experience verified by division dean.Note: The certificate of achievement requires completion of the major (29 units)and 6 units of the courseoptionswith a GPA of 2.0 or better. The associatedegree additionally requires the completion of the requirements listed inthe Graduation Requirements section of this catalog.
SUGGESTED SEQUENCE OF COURSES
FIRST YEAR
First Semester ..... Units
FM 27 Introduction to Fashion Industry .....  3
FM 22 Fashion Analysis and Wardrobe Selection .....  3
Option .....  3
Total 9
Second Semester ..... Units
FM 25 Professional Image .....  3
FM 26 or TA 16 Fashion History .....  3
FM 19 Work Experience .....  1
Total
SECOND YEAR
First Semester ..... Units
FM 20 or HEC 20 Textiles .....  3
FM 28 Vsual Merchandising .....  3
FM 19 Work Experience .....  1
Option .....  3
Total 10
Second Semester ..... Units
FM 21 Salesmanship .....  3
FM 29 Modeling and Fashion Promotion .....  3
FM/MKTG 14 Retailing .....  3
Total 9
FASHION MERCHANDISI NG
MARKETING/HOME ECONOMICS - MAJ OR \#2151
ASSOCI ATE IN SCI ENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENTREQUI RED CORE COURSESUnits
FM 22 Fashion Analysis .....  3
FM 20 Textiles .....  3
FM 14 Retailing .....  3
Vsual Merchandising .....  3

| *FM 19 | Work Experience ..... | . 2 |
| :---: | :---: | :---: |
|  | Interior Design .......... |  |
| FM 21 | Salesmanship .... |  |
|  | Total Option Requirements 20 |  |
| COURSE OPTIONS - SELECT 3 UNITS |  | Units |
| MKTG 10 | Marketing................ | $\ldots$ |
| MKTG 12 | Advertising .......... | .. 3 |
| HEC 24 | Beginning Sewing.... | ....... 3 |
| HEC 26 | Intermediate Sewing ... | $\ldots$ |
| FM 26 | Fashion History......... | ..... 3 |

Students are required to establish eligibility for English 125 and 126 or English 153 or ESL 67 and 68.
*or 180 hours of field experience verified by division dean.
Notes: 1. An AS degree will be awarded to any Fashion Merchandising certificate candidate who successfully completes a total of 60 units. The 60 units must include associate degree requirements and 23 units of course work in the major as listed above.
2. Associate degree requirements are listed on page 28.
3. General Education requirements for transfer certification are on page 35.

FIRE TECHNOLOGY - maj OR \#883A
This curriculum is designed to prepare students for initial employment and advancement in the field of Fire Technology. It also prepares students for upper divisional course work towards a bachelor's degree.
ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHI EVEMENT
REQUI RED CORE COURSES Units

AT 10 Technical Computer Applications ...................... 2
AT 120 Industrial Science............................................. 3
AT 130 Industrial Mathematics ...................................... 3
FIRET 1 Fire Protection Organization ............................ 3
FIRET 2 Fire Prevention Technology ............................... 3
FIRET 3 Fire Protection Equipment and Systems .............. 3
FIRET 4 Building Construction for Fire Protection ........... 3
FIRET 5 Fire Behavior and Combustion .......................... 3 Total 23
COURSE OPTI ONS: SELECT 12 UNITS Units
FIRET 6 Hazardous Materials........................................... 3
FIRET 8 Fire Hydraulics ...................................................
FIRET 9 Fire Fighting Practices...................................... 3
FIRET 13 Arson and Fire Investigation Tech ...................... 3
*FIRET 130 Basic Fire Academy.......................................... 6
FIRET 131 Emergency Medical Technician 1 ....................... 8
*FIRET 130 carries a value of up to 30 units; however, only 6 units can be applied to the associate in science degree and certificate of achievement.

It is recommended that students establish eligibility for English 125 and 126 or English 153 or ESL 67 and 68.
Note: Thecertificate of achievementrequires completion of themajor ( 26 units)
and 12 units of the recommended course options w with a GPAof 2.0 or
better The associate degree additionally requires completion of the re
quirements listed in the Graduation Requirements section of this cata-
log.

SUGGESTED SEQUENCE OF COURSES
FIRST YEAR
First Semester Units
AT 120 Industrial Science.............................................. 3
AT 130 Industrial Mathematics .................................... 3 Total 6
Second Semester Units
FIRET 1 Fire Protection Organization ............................. 3
FIRET 2 Fire Prevention Technology ............................... 3
FIRET 5 Fire Behavior and Combustion ........................... 3
OPTION .................................................................... 6
Total 15
SECOND YEAR
First Semester Units
AT 10 Technical Computer Applications ....................... 2
Total 2
Second Semester Units
FIRET 3 Fire Protection Equipment and Systems .............. 3
FIRET 4 Building Construction for Fire Protection ........... 3
OPTION ..........................................................................
Total 12

## FOOD AND NUTRITION - MA OR \#5682



| CHEM 3A | Introduction to General Chemistry ..................... 4 |
| :--- | :--- |
| FN41 | Sports Nutrition ............................................................................................................................................................... |

Note: ASdegree: The Food and Nutrition major consists of 38-41 units as indicated above. Sudents must complete the Food and Nutrition major and associate degree requirements listed on page 28. General Education requirements for transfer certification are on page 35.

## DI ETARY AIDE - MAJ OR \#5750

For people working as Dietary Aides in acute care and convalescent hospitals, EOC lunch sites, child care sites, and residence care facilities.

## CERTIFICATE OF COMPLETION Units

FN40 Elementary Nutrition ........................................ 3
FN45 Nutrition and Diet Therapy................................ 3
FSM 35 Sanitation, Safety and Equipment .................... 2
FSM 19 Work Experience .............................................. 1
Total 9

## DI ETETIC SERVICE SUPERVI SOR - MAJ OR \#5681

The dietetic service supervisor is responsible for food service supervision and nutrition care of clients or patients in hospitals, nursing homes and residential facilities.

This program is accredited and approved by the California State Department of Health Services, Licensing and Certification Division. To graduate from the program, the student must earn a grade of "C" or better in each course that is included in the program. Course grades are earned through the development of competencies needed for successful employment as a Dietetic Assistant.

Consult with a member of the Dietetic Services staff before scheduling courses in the program. At this time, the student will be registered in the program and a program of study, including appropriate field experience, will be planned. Students will be required to establish eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 51.


| IS 15 | Computer Concepts ..... |
| :---: | :---: |
|  | Total 16-19 |
| ELECTIVES | Units |
| FN 1 | Principles of Food Preparation ....................... 3 |
| FN 42 | Child Nutrition ........................................... 3 |
| FSM 38 | Quantity Food Preparations ........................... 3 |
| FSM 25 | Food and Beverage Purchasing and Control ....... 2 |
|  | Total 11 |

FSM 19 must be taken while concurrently enrolled in each of the following courses: FN 45, FSM 11, FSM 15, FSM 35. Pass Competency Exam at 70 percent.

## SUGGESTED SEQUENCE OF COURSES

| First Semester | Units |
| :---: | :---: |
| FSM 35 | Sanitation, Safety and Equipment..................... 2 |
| FSM 15 | Food Production Management....................... 2 |
| FSM 19 | Occupational Work Experience .....................1-4 |
| FN 40 | Nutrition .................................................... 3 |
|  | Total 8-11 |
| Second Semest | er Units |
| FN 45 | Nutrition and Diet Therapy........................... 3 |
| FSM 19 | Occupational Work Experience ..................... 2-4 |
| FSM 11 | Food Service Supervision or |
| BA31 | Human Resources Management....................2-3 |
|  | Total 7-10 |

Note: Occupational work experience must accompany each of the following courses in the program: FSM35, 15, 45, 11. Additional units of FSM19 may berequired if a studentlacks experience needed for achievement of competencies. Students who complete the Dietetic Service Supervisor program with 19 units of credit from the above and 1 unit of credit selected from the following listfor a total of 20 units will be awarded a certificate of achievement: FSM 19, FSM 38, FSM 25, FN 1, FN 42 . These 20 units also constitute most of the major in Food and Nutrition for the AS degree.

## Articulation of the Dietetics and Food Administration Major With CSUF

Fresno City College students planning to transfer to California State University, Fresno, into a Dietetics or Food Services major approved by the American Dietetics Association should take the following lower division courses before transferring to CSU, Fresno.

|  | Units |
| :---: | :---: |
| CHEM 3A | Intro to General Chemistry ............................... 4 |
| CHEM 8A | Elementary Organic Chemistry ......................... 3 |
| BIOL 1 | Principles of Biology, or |
| BIOL 4 | Principles of Zoology.....................................4-5 |
| BIOL 22 | Human Physiology .......................................... 5 |
| BIOL 31 | Microbiology ..................................................... 4 |
| PSY 2 | General Psychology ......................................... 3 |
| ECON 1B | Intro to Microeconomics .................................. 3 |
| FN 40 | Nutrition .......................................................... 3 |


| FN 1 | Principles of Food Preparation .......................... 3 | ELECTIVES: SELECT 10 UNITS |  |
| :---: | :---: | :---: | :---: |
| SOC 1A | Intro to Sociology ......................................... 3 | BT 10 | Records Management. |
| MATH 101 | Elementary Algebra, or | CHDEV 34 | Creative Cooking with Children ...................... 1 |
| MATH 103 | Intermediate Algebra.................................... 3 | FN 1 | Principles of Food Preparation ........................ 3 |
| Computer Class |  | FN 42 | Child Nutrition ........................................... 3 |
|  |  | FSM 19 | Occupational Work Experience .....................1-4 |
| FOOD SERVICE MANAGEMENT - MAJ OR |  | FSM 38 | Quantity Foods Preparation ............................. 3 |
|  |  | FSM 11 | Food Service Supervision .............................. 2 |
| \#5691 |  | FSM 15 | Food Production Management ........................ 2 |
| Complete $34-38$ units of required courses in the basic core. An associate in science degree in Food Service Management will be awarded on the successful completion of 60 units. Consult with food service staff. |  | FSM 25 | Food and Beverage Purchasing and Control ...... 2 |
|  |  | GRAPHIC COMMUNI CATI ONS - formerly |  |
| ASSOCI ATE IN SCI ENCE DEGREE AND |  | PRINTING TECHNOLOGY AND REPROGRAPHICS - MAJ OR \#8332 |  |
| REQUI RED CORE COURSES Unit |  | This curriculum is for the student considering employment in graphic communications production. Completion of the program will provide entry-level skills and a general understanding of production |  |
| ACCTG 4A | Principles of Financial Accounting, or |  |  |
| BT 31 | Applied Accounting....................................... 3-4 |  |  |
| BA 18 | Business and the Legal Environment ................. 4 | techniques ranging from computerized layout through output in print |  |
| ECON 1B | Intro to Microeconomics ................................ 3 | media, world wide web, interactive multimedia products, and |  |
| FN 1 | Principles of Food Preparation ......................... 3 | repurposing work for distribution. |  |
| FN 35 | Nutrition and Health, or | ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |
| FN 40 | Nutrition ................................................... 3 |  |  |
| FSM 11 | Food Service Supervision ............................... 2 | FIRST YEAR |  |
| FSM 15 | Food Production Management ........................ 2 | First Semester Units |  |
| FSM 19 | Occupational Work Experience ....................1-4 |  |  |
| FSM 25 | Food and Beverage Purchasing and Control ....... 2 | GRC 10 | Intro Graphic Communications..................... 2 |
| FSM 38 | Quantity Food Preparation............................ 3 | GRC 20 | Desktop Publishing ........................................ 3 |
| FSM 35 | Food Service Sanitation, Safety and Equipment. $\qquad$ | GRC 41 |  |
| IS 15 | Computer Concepts .................................. 3 |  |  |
| MKTG 10 | Marketing................................................... 3 | Second Semester Units |  |
|  | Total 34-38 | GRC 12 | PageMaker/Intro Graphic Layout ..................... 3 |
| 4 units electives; 20 units General Education |  | GRC 15 | Web Page Construction 1................................. 4 |
| Note: Assciate degreer requirements are listed on page 28. |  | GRC 18 |  |
|  |  | Total 10 |
| CHI LD NUTRITI ON - MAJ OR \#5692 |  |  | SECOND YEAR |  |
| Complete 14 units of required courses in the basic core. Select 10 units from the course options listed below for a total of 24 units for a Food Service major or certificate of achievement. |  | First Semester Units |  |
|  |  | GRC 22 | Multimedia 1 4 |
|  |  | GRC 30 | Quark XPress/Prof. Publishing........................ 3 |
| CERTIFICATE OF ACHIEVEMENT |  | GRC 54 | Math for Graphic Communication ................... 3 |
| REQUI RED CORE COURSES Units |  |  | Total 13 |
| FN 35 | Nutrition and Health ....................................... 3 | Second Semester Units |  |
| FSM 35 | Food Service, Sanitation, Safety | AT 40 | Preparing for Employment Ops $\qquad$ Adobe Acrobat |
| FSM 160 | Basic Skills: Basic Foods ................................ 3 | GRC 16, | Projects/Web2, or |
| FSM 162 | Menu Planning for Children's Nutrition ............ 3 | GRC 21 | Production Methods 2, or |
| IS 15 | Computer Concepts ..................................... 3 | GRC 23 |  |
|  | Total 14 |  | Total 10 |

Recommended Electives: BT 6; GRC 13, 39A, 40A; AT 10; MKTG 11; PHOTO 10, 22.

## GRAPHIC DESI GN OPTION - MAJ OR \#8501

The Graphic Design Option combines aspects of the graphic communication, fine art, and business curricula to provide a foundation in graphic design. The student interested in pre-press operations will receive a background in art and computer graphics with an understanding of the requirements and limitations of production printing.

| ASSOCIATE IN ARTS DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |
| :---: | :---: |
| FIRST YEAR |  |
| First Semester | Units |
| ART 3 | Two-Dimensional Design .................................. 3 |
| ART 7 | Beginning Drawing ...................................... 3 |
| GRC 5 | Intro to Macintosh Computer ............................ 1 |
| GRC 10 | Intro to Graphic Communications .................... 2 |
| GRC 20 | Desktop Publishing ...................................... 3 |

Total 12
Second Semester Units
GRC 12 PageMaker/Intro Graphic Layout ...................... 3
GRC 17 Adobe Illustrator/Illus Software ......................... 3
GRC 18 Graphic Production Methods 1 ............................ 3
GRC 39A Graphic Design I.............................................. 3
Total 12

## SECOND YEAR

First Semester Units
ART 39B Introduction of Graphic Design ........................ 3
PHOTO 10 Basic B/WPhoto ............................................... 3
PHOTO 22 Electronic Still Photography............................... 3
Total 9
Second Semester Units
ART 40B Advanced Graphic Design .................................. 1.5
AT $40 \quad$ Preparing for Employment Ops......................... 3
GRC 30 Quark XPress/Prof. Publishing.......................... 3
GRC 40A Graphic Design II .............................................. 1.5
MKTG 11 Salesmanship or
BA 38 Operation of the Small Business ......................... 3
Total 12
Recommended Electives: GRC 13, 14, 15, 21, 22, 23, 41, 54.
WEB DESIGN - MAJ OR \#8502
This certificate of completion is evidence of knowledge of the preparation of graphics and web sites for the Internet. Through the creation and capture of images, creation of animation, and layout/design of pages, the student gains insight into graphic industry standards.
CERTIFICATE OF COMPLETION ..... UNITS
GRC15 Web Page Construction 1 .....  4
GRC 16 Web Page Construction 2 .....  4
GRC 24 Flash Animation .....  3
GRC 25 Fireworks/Dreamweaver .....  3
GRC 26 Macromedia Freehand .....  3
Total 17

## HEALTH I NFORMATION TECHNOLOGY

FORMERLY MEDICAL RECORD TECHNOLOGY - MAJ OR \#4621
This curriculum has been established to prepare the student for a challenging career in health information technology. The health information technician is the professional responsible for maintaining components of health information systems as they relate to manage ment, legal aspects, health records, information retention and retrieval, health statistics, and classification and indexing systems.

As a health information professional, there are many and varied employment opportunities (e.g., acute care hospitals, ambulatory care centers, insurance companies and state and federal health agencies).

## Admission Policy

Enrollment is limited in the Health Information Technology Program. There are no restrictions as to age, race, sex or marital status. In order to qualify for admission to the program, the applicant must have:

1. Graduated from high school with a minimum average of " C " (2.0) in high school work or completed the General Education Development (GED) test with an average score of 45 .
2. Completed an Academic Summary Form for the Health Information Technology program and be prepared to furnish transcripts when requested.
After selection as a qualified studentto the Health Information Technology program, the student must submit evidence of physical examination by a licensed physician.

| ASSOCI ATE IN SCI ENCE DEGREE |  |
| :---: | :---: |
| FIRST YEAR |  |
| First Semester | Units |
| BIOL 151 | Anatomy \& Physiology .................................... 4 |
| HT 1 | Introduction to Health Care Records................. 3 |
| HTT 10 | Medical Terminology .................................... 3 |
| IS 15 | Introduction to Computer Information Systems ....... 3 |

Total 13
Second Semester Units
HT 4 Disease Process.......................................................... 3
HT 5 Introduction to Coding ......................................... 3
HT 12 Health Information in Alternative Settings ......... 2
IS 25 Microsoft Office ....................................................... 3
MA 2 Pharmacology ..................................................... 3

| SECOND YEAR |  |
| :---: | :---: |
| First Semester | Units |
| HIT 2 | Legal Aspects of Health Information .... |
| HIT 3 | Quality Improvement......................... |
| HIT 7 | Directed Practice. |
| HTT 9 | Hospital and Health Statistics.. |
| HIT 11 | CPT Coding.... |
|  | Total 13 |
| Second Semester | er Units |
| HIT 6 | Coding and Reimbursement...... |
| HIT 7 | Directed Practice................... |
| HTT 8 | Health Information Management and Supervision $\qquad$ |
| Elective |  |
|  | Total 14 |
| National Registration The Health Information Technology Program is accredited by the |  |
| American Health Information Management Association and the commission on Accreditation of Allied Health Education Programs. Successful completion of the Health Information Technology Program qualifies the graduate for an associate in science degree and eligibility to take the Registered Health Information Technician (RHT) exam. |  |
| Notes: 1. BIOL24 or BIOL20 and 22 may be substituted for BIOL 151. BIOL 151 is a nontransferable course. |  |
| 2. In addition to all major associate degree requirements, students must take a 3 -unit elective of their choice. Recommended areas are accounting, business computer applications software, finance, personal management, professional writing, and statistics. |  |
| 3. The associate degree requires the completion of additional units and requirements listed with 2.0 or better GPA |  |
| HOME ECONOMICS - CONSUMER EDUCATION - MAJ OR \#5640 |  |
| Students must complete 12 units of required core courses and select 8 units from the course options, for a total of 20 units for a Home Economics major or certificate of achievement. |  |
| ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |
| REQUI RED CORE COURSES |  |
| HEC 1 |  <br> Careers in Home Economics $\qquad$ .. 3 |
| FN 45 | Nutrition \& Diet Therapy .............................. 3 |
| FN40 | Nutrition, or |
| FN 35 | Nutrition and Health ................................... 3 |
| HEC 7 | Interior Design ............................................ 3 |
|  | Total 12 |

COURSE OPTI ONS: SELECT A MINIMUM OF 8 UNITS Units
CHDEV/PSY 38 Lifespan Development. .....  3
CHDEV/PSY 39 Child Development .....  3
CHDEV/FN 42 Child Nutrition .....  3
FN $1 \quad$ Food Preparation .....  3
FN 41 Sports Nutrition .....  2
FN 43 Nutritional Needs of Women .....  2
FM/HEC 20 Textiles .....  3
FM 22 Fashion Analysis \& Wardrobe Selection .....  3
FM 25 Professional Image .....  3
FM 26 Fashion History .....  3
FM 28 Visual Merchandising .....  3
FM 29 Modeling and Fashion Promotion .....  3
HEC 24 Beginning Sewing. .....  3
HEC 26 Intermediate Sewing .....  3
HEC/SOC 32 Courtship, Marriage, Divorce, Family and Interpersonal Relationships .....  3
Note: An ASdegree will be awarded on the successful completion of 60 units.(See page 28 for associate degree requirements.) General Education re-quirements for transfer certification are on page 35.
SUGGESTED SEQUENCE OF COURSES
FI RST YEAR
First Semester ..... Units
HEC1 .....  3
Option (select one) FN 33, FN41, or FN 43 .....  2
Second Semester ..... Units
FN45 .....  3
Option (select one) from the Child \& Family Studies courses:
CHDEV/PSY 38, CHDEV/PSY 39, CHDEV/FN42, or HEC/SOC 32 .....  3
SECOND YEAR
First Semester ..... Units
FN40 or FN 35 .....  3
Options (select one) from the Food \& Nutrition or Clothing \& Textiles courses:
FN 1, FM/HEC 20, HEC 24, or HEC 26 .....  3
Second Semester ..... Units
HEC 7 .....  3
Option (select one) from the Fashion Merchandising courses: FM 22, FM 25, FM 26, FM 29 .....  3

## HUMAN SERVICES

## ALCOHOLISM AND DRUG ABUSE COUNSELING OPTION - MAJ OR \#7951

This program is designed for students interested in working in the field of chemical dependency. Completion of the total program will broaden a candidate's understanding and assist in preparation needed to enter the field.

This program is recognized by the California Association for Alcohol/Drug Educators (CAADE).

The program offers course work leading to a certificate of completion, a certificate of achievement, and an AS degree in Alcoholism and Drug Abuse Counseling.

## ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

REQUI RED CORE COURSES Units
HS/SOC 10 Introduction to Aging Studies............................. 3
HS 18 Alcohol and Drug Counseling: $\quad$ Personal and Professional Growth ................. 2
HS 19B Occupational Work Experience .......................... 6
HS 20 Introduction to Social Welfare ........................... 3
HS/SOC $40 \quad$ Alcohol and Drug Abuse Counseling:
Law and Ethics, Prevention, Education, and
Outreach and Referral ................................... 3
HS 42 Introduction to Alcohol and Drug Counseling........ 3
HS 43 Alcohol and Drug Abuse Counseling: $\quad$ Case Management......................................... 3
HS 44 Drug Use: Physical and Psychological Effects..... 3
Total 26
COURSE OPTI ONS: SELECT 7 UNITS Units
$\begin{array}{cl}\text { AFRAM 1 } & \text { African-American Culture or } \\ \text { AMIND 34 } & \text { American Indian in Contemporary Society or } \\ \text { CLS/SOC 14 } & \text { Sociology of Chicano Community .................... } 3\end{array}$
CHDEV5 Parenting Skills .............................................. 3
CHDEV/PSY 12 Child Abuse ..........................................................
HS/SOC2 American Minority Groups................................ 3
HS/SOC/WSTS 5 Sociology of Rape ........................................... 2
HS/SOC/WSTS 7 Domestic violence: Abuse Within the Family ...... 1
HS 24 Fundamentals of Counseling and Interviewing....... 3
HS/WSTS 25 Assertive Behavior Training .............................. 2
PSY 2 General Psychology ........................................ 3
PSY 5 Social Psychology ............................................ 3
PSY 16 Abnormal Psychology ........................................ 3
PSY 25 Human Sexuality............................................. 3
PSY 33 Personal and Social Adjustment ........................ 3
$\begin{array}{cl}\text { SOC 1A } & \text { Introduction to Sociology, or } \\ \text { SOC 160 } & \text { Basic Sociology .................................................... }\end{array}$

SOC 1B Problems of Society ......................................... 3
SOC 32 Courtship, Marriage, and Divorce: Family and Interpersonal Relationships ......................... 3
WSTS 10 Changing Roles of Women ............................... 3
WSTS 42 Women and Chemicals ..................................... 2
Eligibility for ENGL 125, 126, 153, or ESL 67,68 recommended.
Notes: 1. An ASdegree will beawarded to any Aloohol and Drug AbuseCounseling Certificate candidate who successfully completesa total of 60 units. The 60 units must include associate degree requirements and 33 units of course work in the major as listed above.
2. Associatedegreerequirements arelisted on page 28 . General Education requirements for transfer certification are on page 35 .

## CERTIFICATE OF COMPLETION

The certificate of completion is a recognition that the student has completed two entrance-level courses in the area of Alcoholism Counseling. HS 42 Intro to Alcohol and Drug Counseling ................ 3
HS 43 Alcohol and Drug Abuse .................................... 3 Total 6

SOCI AL WORK OPTION - MAJ OR \#7631
Students must take the required courses listed in the Core (see be low), and select 12 units from the list of options.
ASSOCIATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
REQUIRED CORE COURSES Units
BT 6 Computer Keyboarding ..................................... 1.5
HS/SOC 10 Introduction to Aging Studies............................ 3
HS 19A Work Experience ............................................. 3
HS 20 Introduction to Social Welfare ............................ 3
HS 24 Fundamentals of Counseling/Interviewing ......... 3
HS $30 \quad$ Group and Community Interventions in Social Work .3
IS 12 Computer Literacy ........................................... 2
Total 18.5
COURSE OPTI ONS: SELECT 12 UNITS Units
AFRAM 1 African-American Culture .................................. 3
AFRAM 2 The Cultural Adaptation $\quad$ of the African-American................................. 3
AMIND 32 Native American History ..................................... 3
AMID 34 The Native American in Contemporary Society .................................... 3
BT 107 WordPerfect I..................................................... $1 .{ }^{1}$
BT 108 WordPerfect II ...................................................
BT/IS 14 Windows .......................................................... 1.5
CHDEV5 Parent Education ............................................. 3
CHDEV 11 The Young Child With Special Needs.................. 3
CHDEV/PSY 12 Child Abuse...................................................... 2
CHDEV 15 Diversity Issues in Early Care and Education
$\qquad$

| CHDEV 3 | Child, Family and Community or |
| :---: | :---: |
| CHDEV/SOC 31 | Child in Society... |
| CLS 11 | Introduction to Chicano-Latino Studies |
| CLS/SOC 14 | Sociology of the Chicano Community........ |
| CLS 30 | The Mexican-American Family Social and Psychological Perspectives. .3 $\qquad$ |
| FN 35 | Basic Nutrition or |
| FN/WSTS 43 | Women's Nutrition |
| HMONG 1 | Beginning Hmong . |
| HS/SOC/WSTS 5 | Sociology of Rape .......................................... 2 |
| HS/SOC/WSTS 7 | Domestic Violence: <br> The Problem of Spouse Abuse $\qquad$ |
| HS 10 | Introduction to Aging Studies............................ 3 |
| HS 19A | Work Experience......................................1-4 |
| HS/WSTS 25 | Assertiveness Training................................... 2 |
| HS 38 | Community Mental Health: <br> Policy and Services $\qquad$ |
| SOC 1A/160 | Introduction to Sociology............................... 3 |
| SOC/HS 2 | American Minorities........................................ 3 |
| SPAN 1 | Beginning Spanish |
| WSTS 42 | Women and Chemicals |
| Note: An associate in science degree will be awarded on the successful comple tion of 60 units. See page 28 for associate degree requirements. General education requirements for transfer certification are on page 35. |  |
| For career options, consult with Human Services staff. |  |
| HUMANITIES - MAJ OR \#5330 |  |
| The Humanities Major is ideal for students seeking an integrated liberal arts education, either as a pre professional major or as a self-enrichment program. This recommended sequence of courses will satisfy all requirements for both the AAdegree and General Education transfer certification for the state university system. Students seeking only the AAdegree have greater flexibility in general education electives. |  |
| ASSOCI ATE IN ARTS DEGREE |  |
| FIRST YEAR |  |
| First Semester +HUMAN 10 | Classical Humanities...................................... 3 |
| ENGL 1A | Reading and Composition ........................... 4 |
| +Studio or Perfor | ming Class: Att, Music, or Drama ............................ 3 |
| +Foreign Langua | ye........................................................ 4 |
|  |  |
| Life Science Elective..................................................................4 <br> Total 17-18 |  |
| Second Semester |  |
| +HUMAN 11 | Modern Humanities. |
| +Literature Course: |  |


| TA 32A, 32B, 47 .................................................................. 3 |  |
| :---: | :---: |
| HST 1 | Survey of Western Civilization, or |
| HIST 2 | Survey of Western Civilization ........................... 3 |
| +Foreign Language.................................................................. 4 |  |
| MATHElective ................................................................... 3 |  |
| Physical Education ..................................................................... 1 |  |
|  | Total 17 |
| SECOND YEAR |  |
| First Semester | Units |
| SPEECH 25 | Argumentation ............................................... 3 |
| Physical Science Elective ........................................................... 3-4 |  |
| POLSCI 2 | American Government ..................................... 3 |
| ANTHRO 2 | Cultural Anthropology, or |
| AFRAM 1 | African-American Culture, or |
| CLS 11 | Intro to La Raza Studies, or |
| AMIND 31 | American Indian Culture .................................. 3 |
| HIST 11 | History of United States, or |
| HIST 12 | History of United States................................... 3 |
| Physical Education ................................................................... 1 |  |
|  | Total 16-17 |
| Second Semeste+ ENGL 42 | er Units |
|  | Classic Myths ................................................. 3 |
| +PHL 1A | Knowledge, Existence, Beauty, or |
| PHL 1B | Social \& Political Philosophy, or |
| PHL 1C | Ethics .............................................................. 3 |
| SPEECH 1 | Intro to Public Speaking, or |
| SPEECH4 | Persuasion ..................................................... 3 |
| PSY 2 | General Psychology .......................................... 3 |
| GEOG 2 | Cultural Geography, or |
| GEOG 4A | World Geography, or |
| GEOG 4B | World Geography ............................................ 3 |
| HLTH 1 | Contemporary Health Issues ............................. 3 |
|  | Total 18 |

+Major Requirements

## INDUSTRIAL ARTS AND TECHNOLOGY - maj OR \#8991

The student interested in a career teaching industrial arts and technology may complete the lower division requirements at Fresno City College and transfer as a junior at the end of two years. The sample program shown parallels lower division at California State University, Fresno, and is acceptable for majors in this area. Students should carefully check the lower division requirements of other colleges to which they plan to transfer for minor variations. This program has been articulated with the California State University, Fresno Industrial Arts Department since spring semester 1974.

120 Fresno City College
Associate Degree and Certificate Programs
ASSOCl ATE IN SCI ENCE DEGREE
FIRST YEAR
First Semester
Units
Total 6
Second Semester Units
AT 11 Electricity.......................................................... 3
DRAFT 12 Board Draft Practices ...................................... 3
Total 6
SECOND YEAR
First Semester Units
AUTOT 9 Auto Essentials .................................................... 3
Total 3
Second Semester
Units
AT 10 Technical Computer Applications ....................... 2
AT 40 Preparing for Employment Opportunities .......... 3
Elective .......................................................................... 3
Total 8
Recommended Electives: ARCH 12; WELD 1.
Note: Associate in scienoe degree requirements are listed on page 28.

## INDUSTRI AL TECHNOLOGY

CONSTRUCTION OPTION - MAJ OR \#8240


SECOND YEAR
First Semester Units
ENGL 1B Study of Literature, or
PHL 1A Knowledge/Existence/Beauty
PHLLIA Knowedge/Existence/Beauty .............................. 3

| POLSCI 2 | American Govermment. |
| :---: | :---: |
| ECON 1A | Intro to Macroeconomics ..... |
| BIOL, CHEM or PHYS 2B | 3-4 |
| Physical Education |  |
| AT 10 | Technical Computer Applications ..................... 2 |
|  | Total 15-16 |
| Second Semest | er Units |
| Physical Education .................................................................... |  |
| HLTH 1 | Contemporary Health Issues ........................... 3 |
| HST 11 | Hist of the U.S. to 1865, or |
| HST 12 | Hist of the U.S. Since 1865 ............................ 3 |
| ECON 1B | Intro to Microeconomics ................................ 3 |
| Fine Arts Elective |  |
| ARCH 21 | Building Materials .......................................... 3 |
|  | Total 15 |
| Recommended Electives: At 21; CONS 19, 51, 53; ARCH10, 23, 24, 30 33, 42. |  |
| Note: Assciate degreer requirements are listed on page 28. |  |
| MANUFACTURI NG OPTION - MAJ OR \#8260 |  |
| ASSOCI ATE IN SCI ENCE DEGREE TRANSFER PROGRAM TO CSUF |  |
| FIRST YEAR |  |
| First Semester | Units |
| ENGL 1A | Reading and Composition ............................ 4 |
| CHEM 3A | Intro to General Chemistry, or |
| PHYS 2A | General Physics........................................... 4 |
| MATH 12 | Intro to Calculus, or |
| MATH 5A | Math Analysis I ........................................4-4 |
| DRAFT 12 | Board Drafting Practices ................................. 3 |
| Physical Education .............................................................. 1 |  |
|  | Total 16-17 |
| Second Semester Units |  |
| SPEECH 1 | Intro to Public Speaking, or |
| SPEECH2 | Interpersonal Communication ........................ 3 |
| AT 11 | Electricity................................................ 3 |
| BIOL or GEOL | . 4 |
| ENGR 11 | Manufacturing Processes............................. 3 |
| Physical Education ............................................................... 1 |  |
|  | Total 14 |
| SECOND YEAR |  |
| First Semester Units |  |
| ENGL 1B | Study of Literature, or |
| PHL 1A | Knowledge/Existence/Beauty ......................... 3 |
| POLSCI 2 | American Government .................................... 3 |
| ECON1A | Prin of Macroeconomics................................. 3 |
| WELD 1 | Basic Welding ............................................... 3 |

POLSCI 2 American Government ..... 3BIOL, CHEM orPHYS 2B1AT 10 Technical Computer Applications 2Physical Education 1
HST 11 He 1 US 1865 3Fine Arts Elective3
ARCH 21 Building Materials ..... 3Recommended Electives: At 21; CONS 19, 51, 53; ARCH10, 23, 24, 30,33, 42.MANUFACTURI NG OPTION - MAJ OR \#8260
ASSOCI ATE IN SCI ENCE DEGREE TRANSFER PROGRAM TO CSUFFI RST YEAR
irst Semester4
PHYS 2A General Physics. .....  4
MATH 5A Math Analysis I ..... 5-4Physical Education 1Second SemesterUnits
SPEECH2 Interpersonal Communication .....  3BIOL or GEOL 4Physical Education 1
Stcond searUnits
PHLL 1ASud ofleAmerican Government 3
Prin of Macroeconomics 3


122 Fresno City College
Associate Degree and Certificate Programs

| IS 30D | MCSE-1561 Directory Infrastructure ................. 2 |
| :---: | :---: |
| IS 30E | MCSE-1562 Network Services ........................... 2 |
| IS 30F | MCSE-2150 Network Security .......................... 4 |
| IS 30G | MCSE-836 Proxy Server ................................. 4 |
|  | Total 24 |

+Pending State Chancellor's Office approval.
MICROCOMPUTER SOFTWARE SPECIALIST -
MAJ OR \#2086
Designed for the nontransfer student leading to employment as a microcomputer software specialist or similar computer specialist. Completing the program with the college graduation requirements leads to an AS degree; without the graduation requirements, student is eligible for a certificate of achievement.

\section*{ASSOCI ATE IN SCI ENCE DEGREE AND <br> CERTIFICATE OF ACHIEVEMENT <br> FIRST YEAR <br> | First Semes | Units |
| :---: | :---: |
| ACCTG 4A | Principles of Financial Accounting ................... 4 |
| BA 28 | E-Law and Ethics .......................................... 3 |
| BT 106 | Computer Keyboarding ...................................1.5 |
| IS 15 | Computer Concepts ........... |
| MATH 101 | Elementary Algebra (if needed) ....................... 3 |

Second Semester ..... Units
BT/IS 25 Microsoft Office, or ..... 3
BT/IS 18 Spreadsheet Fundamental, and ..... 1.5
BT/IS 26 Database Fundamentals. ..... 1.5
IS 14 Windows ..... 1.5
IS 40 Internet ..... 1.5
IS 4 Research on the World Wide Web ..... 1.5
Total 10.5
SECOND YEAR
First Semester Units
IS 17 Data Communication .....  3
IS 20 Advanced Spreadsheets ..... 1.5
IS 32 PowerPoint ..... 1.5
IS 47 Visual Basic .....  3
Total 9
Second Semester ..... Units
IS 19 Work Experience .....  2
IS 27 Advanced Database ..... 1.5
IS 46 Advanced Microsoft Office ..... 3Total 6.5

Recommended Electives: IS 23, 24, 33, 60 .Note: Associate degree requirements are listed on page 28.Total 24
CERTI FI CATE OF COMPLETION俍
Units
BT/IS 26 Database Fundamentals .....  3
IS 27 Advanced Database ..... 1.5
Total 3
MICROSOFT EXCEL 2000-MAJ OR \#2434
This certificate of completion option is designed to assist studentspursuing MOUS certification.
CERTIFI CATE OF COMPLETION ..... Units
BT/IS 18 Spreadsheet Fundamentals ..... 1.5
IS 20 Advanced Spreadsheets ..... 1.5
Total 3
MICROSOFT OFFICE 2000 - MAJ OR \#2432
This certificate of completion option is designed to assist studentspursuing MOUS certification.
CERTIFI CATE OF COMPLETION ..... Units
BT/IS 25 Microsoft Office. .....  3
IS 46 Advanced Microsoft Office .....  3
Total 6
NETWORKI NG/ COMPUTER TECHNICI AN - MAJ OR \# ..... 2430
This option is designed to meet the training needs for qualified en-try-level microcomputer and networking technicians.
ASSOCIATE IN SCI ENCE DEGREE AND CERTIFI CATE OF ACHIEVEMENT TOTAL UNITS REQUIRED ..... 28
REQUI RED CORE COURSES ..... Units
*BT 20 Resume/Interview. ..... 1.5
*BT 21 Working Relationships. ..... 1.5
BT 112/ENGL 59 Business English .....  2
EST/IS 19 Occupational Work Experience .....  2
EST 50 Introduction to Electronics. ..... 2.5
EST 55A Digital Concepts. .....  3
EST 60 PC and LAN Maintenance .....  3
EST 61 Networking Essentials .....  3
IS 15 .....  3**IS 17 Data CommunicationsIS 22 Computer Operating Systems 3
3
IS 30 Fundamentals of Networking

Fundamentals of Networking .....  3

## SUGGESTED SEQUENCE OF COURSES

| Fall Semester | Units |
| :---: | :---: |
| EST 50 | Introduction to Electronics ................................ 2.5 |
| EST 60 | PC and LAN Maintenance .................................. 3 |
| EST 61 | Networking Essentials ...................................... 3 |
| IS 15 | Computer Concepts ......................................... 3 |
| **IS 17 | Data Communications ...................................... 3 |
|  | Total 14.5 |
| Spring Semest | Units |
| *BT 20 | Resume/Interview........................................... 1.5 |
| *BT 21 | Working Relationships...................................... 1.5 |
| BT12/ENGL 59 | Business English ............................................. 2 |
| EST/IS 19 | Occupational Work Experience ......................... 2 |
| EST 55A | Digital Concepts............................................ 3 |
| IS 22 | Computer Operating Systems............................ 3 |
| IS 30 | Fundamentals of Networking ........................... 3 |
|  | Total 16 |

*AT 40 can be substituted for BT 20 and BT 21 . **EST 57 may be substituted for IS17.
Note: Associate degree requirements are listed on page 28.
SYSTEM SUPPORT SPECI ALIST - MAJ OR \#2435
This option is designed to meet the training needs for qualified en-try-level systems support personnel.

## SUGGESTED SEQUENCE OF COURSES: <br> CERTI FICATE OF COMPLETI ON <br> Fall Semester Units <br> IS 17 Data Communications......................................... 3 <br> IS 22 Computer Operating Systems ................................ 3 <br> IS 231 Network+ Preparation ........................................ 1.5 <br> Total 7.5

Spring Semester
EST 60
IS 238 At Systems Software ............................................... 3
IS 239 INET + Preparation ............................................. 3
Total 9

## WEB PAGE DEVELOPMENT - MAJ OR \#2431

This certificate of completion option is designed to assist students who would like to develop web pages.
CERTI FICATE OF COMPLETI ON Units
IS 40 Internet Basics ..... 1.5
IS $23 \quad$ Web Page Development I ..... 1.5
IS 24 Web Page Development II ..... 1.5

## WEBMASTER+ - MAJ OR \#2083

This option is designed to prepare students for work in the computer industry as Webmasters. Completing the program with the college graduation requirements leads to an AS degree; without the graduation requirements, student is eligible for a certificate of achievement.
ASSOCI ATE IN SCl ENCE DEGREE AND CERTI FICATE OF ACHI EVEMENT
SUGGESTED SEQUENCE OF COURSES:
Program Prerequisites (may be fulfilled by passing tests)
Math 101, Elementary Algebra or equivalent
English 125, Writing Skills for College
BT 6, Computer Keyboarding
FI RST YEAR
First Semester Units
GRC 39A Graphic Design I ................................................. 3
IS 115 Computer Concepts ............................................. 3
IS 140 Internet ................................................................ 1.5
IS 141 Research on World Wide Web ............................... 1.5
Total 9
Second Semester Units
IS 25 Microsoft Office......................................................... 3
IS 122 Computer Operating Systems............................... 3
IS 147 Visual Basic......................................................... 3
Total 9
SECOND YEAR
First Semester
Units
BA 28 E-Law and Ethics................................................. 3

GRC 15 Web Page Construction I ...................................... 4
IS 33 Beginning Java Programming.............................. 3
Total 10
Second Semester Units
IS 23 Web Page Development I ...................................... 1.5
IS 24 Web Page Development II...................................... 1.5
IS 34 Advanced Java Programming ............................. 3
Total 6
Recommended Electives: GRC 41; IS 30, 46, 60.
Note: Associate degree requirements are listed on page 28.
+Pending State Chancellor's Office approval.


## LI BERAL STUDIES - MA OR \#5890

Transfer Credit Agreement with CSU, Fresno Lower Division Major Preparation.

Students planning to transfer to CSUF and become elementary teachers should use the CSUF Liberal Studies major sheet available in the Counseling Center. Required courses include EDUC 30 and EDA 19.

1. Liberal Studies Major Core

IS 12, Computer Literacy
IS 15, Computer Concepts

* CSCI 7, Computer Literacy
* IS 50, Computer Concepts

Multiple Subject Teaching Option:
CHDEV/PSY 39, Child Development

* CHDEV39, Child Development

2. Content Requirements
I. Arts/Humanities

One course from:
ART 5, 6, Art Fist
MUS 12, Mus App
Any Foreign Language
HUMAN 10, 11
ENGL 15A, B, C, or D, Creative Writing
One course from:

* Art Fist 10, 11
* Mus 74
* Any Foreign Language
* Humanities 10,11
* English 41 or 43
II. Social Science

One course from:
GEOG 4A or 4B, Whd Geog

* GEOG 4

Two courses from:
HST 11, Hist US to 1865
HST 12, Hist US Since 1865
HST 1, 2, Hist of West Civ
Two courses from:

* History 11
* History 1,2
III. Mathematics/Science MATH 41 or any course with a prerequisite of Math 3
* Math 41 or any course with a prerequisite of Math 3

One course from:
CHEM 3A, Intro General Chem
GEOG 8, Physical Geog
PHYSC 11, Intro Phys Sci or
GEOL 1, Physical Geol
PHYSC 12, Intro Chem \& Geol
One course from:

* Chemistry 1
* Geography 5
* Geology 1
* Physics 10
IV.Ethnic/Gender/Culture
Upper division
*CSUF Lower Division Major Requirements


## Credential Requirements

1. Health 1, Contemporary Health Issues ( 3 units), is required for the credential program and should be taken no longer than seven (7) years before graduation. This course takes the place of CSUF HS 120 .
2. In order to be admitted to the CSUF School of Education for the Multiple Subject Credential, a student must meet the following criteria:
a. achievea minimum GPAof 2.89
b. take and pass the CBEST exam
c. complete EDUC 30 (3 units) and EDA 19 (1 unit); these are equal to CSUF EHD 50 .

## Associate Degree Requirements - Major \#5890

In addition to General Education Transfer Requirements listed on page 35 , the student must complete the following.
60 units (minimum)

1. HLTH 1, CHDEV/PSY 38 , PSY 2 or PSY 33
2. Physical Education (2 courses)
3. 20 units of major courses

Note: Acourse used to meet major preparation requirements cannot also be used to meet General Education requirements.

## LI BRARY TECHNOLOGY - maj or \#5171

An AS Degree will be awarded to students who successfully complete the Library Technology program and fulfill the associate degree require ments as outlined in the Fresno City College catalog. It is the student's responsibility to be aware of any degree requirements. Students interested in the associate in science degree are urged to consult a counselor or faculty advisor regarding this program.
ASSOCI ATE IN SCIENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENT
REQUI RED CORE COURSES ..... Units
AT 10 Technical Computer Applications .....  3
LTEC 51 Introduction to Library Services .....  3
LTEC 52 Library Technology Services .....  3
LTEC54 Literature and Services for Youth .....  3
LTEC 55 Library Public Service. .....  3
LTEC 56 Information Technology. .....  3
LITEC 57 Reference: Print and Online Sources. .....  3
COURSE OPTI ONS: SELECT A MI NIMUM OF 3 UNITS Units
BT 1 Beginning Typing .....  3
ENGL 1B Study of Literature .....  3
ENGL 14 Folklore .....  3
ENGL 125 Writing Skills for College. .....  3
ENGL 45 Contemporary World Literature. .....  3
IS 15 Computer Concepts .....  3
Note: Associate degree requirements are listed on page 28.
MARKETING - MAJ OR \#2110
This curriculum is designed for students planning to enter the marketing fields of retailing, wholesaling, general selling, and advertising.
ASSOCI ATE IN SCI ENCE DEGREE
FI RST YEAR
First Semester Units
MKTG 10 Marketing .....  3
MKTG 11 Salesmanship .....
Associate Degree Requirements. ..... 10
Total 16
Second Semester ..... Units
BA 18 Business and the Legal Environment .....  4
MKTG 12 Advertising .....  3
IS 15 Computer Concepts ..... 3
Associate Degree Requirements. .....  7
Total 17
SECOND YEAR
First Semester ..... Units
MKTG 14 Retailing .....  3
Associate Degree Requirements. ..... 10
Total 13
Second Semester ..... Units
DS 17 Business Mathematics .....  3
BA33 Human Relations in Business. .....  3
Associate Degree Requirements. ..... 10

Recommended Electives: BA5, 10; MKTG 15, 17, 19; ACCTG 4A. (MKTG
19, 1st \& 2nd semester, should be equivalent to 500 hours of work experience.)
Note: Associate degree requirements are listed on page 28.
CERTIFICATE OF ACHIEVEMENT
BT 20 Resume/Interview............................................... 1.5
BT 21 Working Relationships...................................... $1 .{ }^{2}$
BT 115* Refresher Math................................................ 3
BT 131 Applied Accounting .......................................... 3
IS 12 Computer Literacy ............................................. 2
MKTG 10 Marketing Principles....................................... 3
MKTG 11 Salesmanship ................................................. 3
MKTG 14 Retailing ....................................................... 3
MKTG 12 Advertising ..................................................... 3
MKTG 19 Work Experience .............................................. 2
Total 25
*Requirements and units will be waived if knowledge and skill in the subject matter can be demonstrated.

## CALL CENTER TELEMARKETING+

After completion of this program, individuals will be prepared for the following career/jobs: telemarketers, telephone solicitors, customer service representatives, sales associates, sales agents-service, debt collectors, billing clerks, insurance adjuster clerks, banking call center clerks, and any entry-level customer service oriented business.
CERTIFICATE OF ACHIEVEMENT UNITS
BA 8 Business Protocol \& Etiquette.............................. 3
BA 19 Occupational Work Experience ........................... 1
BT 1 Beginning Typing ............................................... 3
BT 20 Resume/Interview............................................... 1.5
BT 21 Working Relations ............................................... 1.5
BT 28 Word for Windows I ............................................ 1.5
BT 122 Skillbuilding ................................................. 1
BT 250 Office Skills Lab ............................................... 1
BT 270 Business Math \& Ten-Key .................................... 2
BT 271 Business Grammar Fundamentals....................... 2
IS 74/BT 24 Beginning Excel ................................................... 1
MKTG 251 Introduction to Sales \& Marketing ...................... 1
MKTG 252 Customer Service ................................................... 1
MKTG 253 Personal Development ......................................... 1
MKTG 255 Telemarketing ..................................................... 1
MKTG 256 Call Center Telemarketing .................................... 1
Total 23.5

+ Pending State Chancellor's Office approval.


## CUSTOMER RELATIONS SPECIALIST ASSOCI ATE OPTION - MAJ OR \#2612

After completion of this program, individuals will be prepared for the following career/jobs: customer service representative, sales associate, receptionist, and any entry-level customer service oriented busi-
ness.
CERTI FICATE OF ACHIEVEMENT Units
BA 7 Business Attitudes ..................................................... 3
BA 8 Business Protocol and Etiquette ........................... 3
BT 20 Resume/Interview..................................................... 1.5
BT 28 MS Word I ............................................................... 1.
BT 106 Computer Keyboarding ........................................ 1.5
BT 250 Office Skills Lab ..................................................... 1
BT 271 Business Grammar Fundamentals......................... 2
DS 270 Business Math Skills............................................... 1
IS 272 Introduction to Computers.................................. 1
IS 277 Accelerated Excel ................................................. 1.5
MKTG 19 Occupational Work Experience ............................ 4
MKTG 251 Introduction to Sales \& Marketing ...................... 1
MKTG 252 Customer Service ................................................ 1
MKTG 253 Personal Development ........................................ 1
MKTG 254 Business Presentations.......................................... 1
MKTG 255 Telemarketing ..................................................... 1
Total 26

## MATHEMATICS+

The math degree program will help prepare students for math and science related subjects they will study in four-year college or university programs.

Preparatory courses: Students needing prerequisite courses will take from the following as required:
MATH 4A Trigonometry
MATH 4B Precalculus
MATH 101 Elementary Algebra
MATH $102 \quad$ Plane Geometry
MATH 103 Intermediate Algebra
ASSOCI ATE IN SCI ENCE DEGREE
Total units required 22-24
REQUIRED CORE COURSES UNITS
CSCI 40 Programming Concepts \& Methodology I ........... 4
MATH 5A Mathematical Analysis I ....................................... 4
MATH 5B Mathematical Analysis II...................................... 4
MATH $6 \quad$ Mathematical Analysis III .................................... 4
Total 16
OPTI ONAL ELECTI VES (SELECT TWO COURSES FROM THE
FOLLOWI NG:)
CSCI
Crogramming Concepts \& Methodology II..........
MAT

## Note: Associate degree requirements are listed on page 28.

+ Pending State Chancellor's Office approval.


## MEDICAL ASSI STANT-CLI NICIAN -

## MAJ OR \#2120

This curriculum is designed for the student who desires employment and advancement in the medical facility assisting the physician with the diagnosis and treatment of the patient.

## Admission Policy

Enrollment is limited in the Medical Assistant-Clinician Program. There are no restrictions as to age, race, sex or marital status. In order to qualify for admission to the program, the applicant must have met all of the following conditions:

1. Graduated from high school with a minimum average of " C " (2.0) in high school work or complete the General Educational Development (GED test with an average score of 45 .
2. Completed Math 60 F or test score that would qualify the student to place out of or above Math 60 F .
3. Completed an Academic Summary Form for the Medical Assistant-Clinician program and be prepared to furnish transcripts when requested.
4. Have no physical impairment that would preclude the performance of all Medical Assistant-Clinician duties.
After selection as a qualified student to the Medical Assistant-Clinician Program, the student must submit evidence of physical examination by a licensed physician.

Second Semester ..... Units
BIOL 51 Anatomy and Physiology .....  4
HLTH2 First Aid and Safety. .....  2
HS 24 Interviewing and Counseling. .....  3
IS 15 Computer concepts .....  3
**MA2 Pharmacology. .....  3
Total 15
SECOND YEAR
First Semester Units
**MA4 Office Lab Procedures .....  4
**MA6A Clinical Training .....  3
Total 7
Second Semester ..... Units
FN40 Nutrition .....  3
**MA5 Testing Procedures. .....  4
**MA 6B Advanced Training .....  3
**MA 19 Work Experience .....  4
Total 14
**Upon completion, the student will be eligible to take the California Medical Assistant Sate Certification Exam.

## MUSIC

This program satisfies the requirementsfor the AAdegree with a major in music and the lower division course requirements at most California state universities.
All Music Majors must take Music 1A, 1B, 2A, 2B, 7A, 7B, 9,13 , and 18. Music Majors mustalso take the appropriate Intermediate/Advanced class and participate in a Large Ensemble every semester they are enrolled in the Music Major.
Instrumental majors (Major \#5810): take Music 42A (brass), 42B (woodwinds) 42C (strings) or 42D (percussion) and Music 40 (Concert Band) or 46 (Symphony Orchestra).
Vocal majors (Major \#5820): take Music 26 (voice) and Music 30 (choir).
Guitar majors (Major \#5830) : take Music 29 (guitar) and Music 30 (choir) or 40 (band)
Piano majors (Major \#5840): take Music 22 (piano) and Music 30 (choir) or 40 (band)

## ASSOCl ATE IN ARTS DEGREE

## SEQUENCE OF COURSES

FIRST YEAR
Fall Semester Units
MUS 1A Music Theory I ................................................. 3
MUS 7A Ear Training ................................................... 1
INT/ADVClas* ........................................................................ 2
Large ensemble+ ........................................................................ 2

MUS $30 \quad$ College Choir

MUS 40 Concert Band
MUS 46 Symphony Orchestra
Note: Associate degree requirements are listed on page 28. General Education requirements for transfer certification are listed on page 35.

## COMMERCIAL MUSIC - MAJ OR \#5850

This program satisfies the music course requirements for the associate in science degree and certificate of achievement in Commercial Music and provides the skills for employment in the music business.ASSOCI ATE IN SCI ENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENT
FIRST YEAR
Fall Semester
Units
MUS4 Jazz/Rock Theory.............................................. 3

## Application Requirements

Enrollment in the Registered Nursing Program is limited. Minimum qualifications for selection must be met. There are no restrictions as to age, race, sex or marital status. Prior to the final date for filing an application to the program, the applicant must have:

1. Graduated from high school with a minimum grade point average of "C+" (2.5) or better in high school work or completed the General Educational Development (GED) test with an average standard score of 45 .
2. Completed Chemistry 3 A or equivalent with a grade of " $C$ " or better.
3. Completed Biology 24, Human Anatomy and Physiology (or equivalent), with a grade of "C" or better, or Biology 20, Human Anatomy, and Biology 22, Human Physiology, (or equivalents) with a grade of "C" or better in each course.
4. Completed Biology 31 , Microbiology, with a grade of " $C$ " or better.
5. Completed Sociology 1A, Introduction to Sociology; and Psychology 2, General Psychology; with grades of "C" or better in each course.
6. Completed English 125, Writing Skillsfor College ( or equivalent), with a grade of "C" or better. English 1A, Reading and Composition (with a grade of " $C$ " or better) is recommended.
7. Completed Math 101, Elementary Algebra, or a more advanced math course with a grade of " $C$ " or better.
8. Attained a cumulative grade point average (GPA) of " $\mathrm{C}+$ " (2.5) or better in completed college work.
9. Completed an Academic Summary Form for the Registered Nursing Program and be prepared to furnish transcripts when requested to do so.
10. Have no physical impairment that would preclude the performance of all registered nurse duties.
11. Be in good physical and mental health.

Notes: 1. The college GPAand college courses of an applicant will have prece dence over an applicant's high school GPA and courses.
2. Prior to registration for the semester in which the applicantisscheduled to take courses in the Registered Nursing Program, the student must submit evidence of physical examination, current immunizations, and freedom of $\mathbb{T B}$ by a licensed physician. The student is also required to attend a mandatory orientation meeting before the start of the semester.

## Change of Name, Address, and/ or Telephone Number

Applicants and nursing students must keep the Nursing Education Office informed of any change in name, address, and/or telephone number. Failure of applicants to inform the Nursing Education Office of changes may result in loss of entry into the program.

## Vocational Nursing Articulation

Procedures and application requirements specific to vocational nurse articulation into the Registered Nursing Program are available upon request.

## Previous Education in Nursing

Any person desiring to enter the Fresno City College Registered Nursing Program by transfer or challenge will be evaluated on an individual basis after all college general requirements for transfer or challenge have been met.
The college has written policies and procedures for academic training in registered nursing programs. Individuals who have completed vocational nursing programs and persons having other education in the field of nursing should contact the Director of Nursing for specific information.

## Prenursing Preparation

Prenursing students planning to transfer to four year programs in other schools should consult the catalog of the transfer school.

## Academic Requirements

All program entry requirement courses listed above must be completed with a grade of " $C$ " or better. In order to be eligible to apply for licensure as a Registered Nurse and to take the National Council Licensure Examination- RN, all other courses leading to the associate degree must also be completed with a grade of " $C$ " or better.
Students in the nursing program must earn a " C " grade or better ( or a "Credit" grade when applicable) in all nursing courses. Less than a " $C$ " or a "Credit" grade in any nursing course requires that the course be repeated before continuing with the major. Registered Nursing courses must be repeated in their entirety. Courses may be repeated once only.
Safe nursing practice is necessary for retention of students in the program. If, based on the professional judgment of the faculty, a student demonstrates that he/she is unsuited to nursing, is not progressing satisfactorily or is engaged in unethical, unprofessional, or illegal practices, he/she may be asked to withdraw from the program.

## State License

The successful completion of the prescribed registered nursing course sequence in addition to the other licensure and/or degree requirements qualifies the graduate for an associate in science degree and eligibility to apply for licensure as a Registered Nurse.

## ASSOCI ATE IN SCI ENCE DEGREE

Registered Nursing Course Sequence (All courses must be completed with a grade of " $C$ " or better.)

PLEGAL 14 Law Office Computing ..... 3
PLEGAL 56/BT 40 Legal Office Administration ..... 3

## PHOTOGRAPHY - MAJ OR \#5220

Students in this curriculum are trained in the major areas of professional photography. Positions for which graduates may qualify, depending upon their interests, abilities, and achievement, include those in the portrait, commercial, editorial, digital, laboratory, and retail fields. Some equipment and supplies provided.
ASSOCIATE IN SCI ENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester Units
ART 3 Two-Dimensional Design ................................ 3
PHOTO 5 Introduction to Photography ............................ 3
PHOTO 10 Basic Black \& White Photography ................... 3
Total 9
Second Semester Units
PHOTO 15 Intermediate Black \& White............................. 3
РНОТО 20 Advanced Black \& White.................................. 3
PHOTO 22 Digital Photography.................................... 3
Total 9
SECOND YEAR
First Semester Units
BA 38 Small Business Management............................. 3
PHOTO 30 Photojournalism............................................. 3
PHOTO 35 Commercial/Industrial Photography ............... 3
Total 9
Second Semester Units
AT 40 Preparing for Employment Opportunities ........ 3
PHOTO 25 Portraiture .................................................... 3
PHOTO 40 Basic Color Photography ................................ 3
Total 9
Recommended Electives: ART 2, 5; GRC 12, 20; JOURN 5; MKTG 12; РНОТО 23, 45.
*PHOTO 20 and 25 offered only in the spring semester. PHOTO 30,35 , 40 offered only in the fall semester.
Note: Associate degree requirements are listed on page 28.

## RADI OLOGIC TECHNOLOGY - maj or \#4571

Imaging examinations performed by, and accompanying responsibilities assigned to, a radiographer shall be at the direction of physicians qualified to request and/or perform radiologic procedures. Upon completion of the program the radiographer shall be able to:

1. Applyknowledge of anatomy, physiology, and radiographictechniques to demonstrate accurately anatomical structures on a radiograph or other imaging receptor.
2. Determine exposure factors to achieve optimum radiographic techniques with minimum radiation exposure to the patient.
3. Evaluate radiographic images for appropriate positioning and imaging quality.
4. Apply the principles of radiation protection for the patient, self, and others.
5. Provide patient care and comfort.
6. Recognize emergency patient conditions and initiate lifesaving first aid and basic life support procedures.
7. Evaluate the performance of radiologic systems, know the safe limits of equipment operation, and report malfunctions to the proper authority.
8. Exercise independent judgment and discretion in the technical per formance of medical imaging procedures.
9. Participate in radiologic quality assurance programs.
10. Assist in fluoroscopic procedures.

Classes are conducted on the Fresno City College campus. Students also attend classes at local hospitals affiliated with the program for clinical experience.
An associate in science degree will be granted upon successful completion of requirements for graduation, which includes formal hospital training. The student will be eligible to take the State licensing examination and the examination given by the American Registry of Radiologic Technologists upon successful completion of requirements for graduation.

## Admission Policy

Enrollment is limited in the Radiologic Technology Program. There are no restrictions as to age, race, or marital status. In order to qualify for admission to the program, the applicant must have met all of the following conditions:

## Application Requirements

Minimum prerequisite requirements for application to the Radiological Technology Program follow.

1. Have completed and submitted an Academic Summary Form for the Radiologic Technology Program.
2. Have graduated from high school or have an average soore of 45 on the General Educational Development (GED) test.
3. Have completed Biology 24, Anatomy and Physiology ( or equivalent), with a grade of " $C$ " or better. Biology 24 may be replaced by Biology 20, Human Anatomy, and Biology 22, Human Physiology, with a grade of " $C$ " or better in each course.
4. Have completed Applied Technology 11, Basic Electricity (or equivalent), with a grade of " C " or better.
5. Have attained a minimum cumulative grade point average (GPA) of "C+" (2.5) in completed college work.
6. Have no physical impairment that would preclude the performance of all radiologic technology duties.
7. Be in good physical and mental health.

Note: Prior to registration for the semester in which the applicant is scheduled to take courses in Radiologic Technology, the sudent must submit evidence of physical examination by a licensed physician.

## Change of Name, Address, and/ or Telephone Number

Applicants and radiologic technology students must keep the Health Science office informed of any change in name, address, and/or telephone number. Failure of applicants to inform the Health Science office of this vital information may result in loss of entry into the program.

## Academic Requirements

All program entry requirement courses listed above must be completed with a grade of " $C$ " or better. In order to be eligible to take the state licensing examination and the examination given by the American Registry of the Radiologic Technologists, all other courses leading to the associate degree must also be completed with a grade of "C" or better.

Students in the radiologic technology program must earn a "C" grade or better ( or a "Credit" grade when applicable) in all program courses. Less than a "C" or a "Credit" grade in any radiologic technology course requires that the course be repeated before continuing with the major. Courses must be repeated in their entirety. Courses may be repeated once only.

Safe professional practice is necessary for retention of students in the program. If a student demonstrates that he/she is unsuited to the profession or is not progressing satisfactorily based on the professional judgment of the faculty, he/she may be asked to withdraw from the program.

## ASSOCIATE IN SCIENCE DEGREE

Radiologic Technology Course Sequence (all courses must be completed with grade of "C" or better)

| FI RST YEAR |  |
| :---: | :---: |
| First Semester | Units |
| RAD 1A | Fundamentals ................................................. 6 |
| RAD 1B | Basic Positioning ............................................ 1 |
| RAD 1C | Clinical Orientation Lab ................................. 2 |
|  | Total 9 |
| Second Semester | er Units |
| RAD 2A | Radiation Biology ............................................ 6 |
| RAD 2B | Advanced Positioning....................................... 1 |
| RAD 2C | Clinical Observation ....................................... 2 |
| RAD 2D | Quality Assurance ............................................. 1 |
|  | Total 10 |

Summer Semester Units
RAD 3A Nursing Procedures...................................... 2
RAD 3B Basic Clinical Rad Tech .................................... 7
Total 9
SECOND YEAR
First Semester Units
RAD 4A Pathology......................................................... 2
RAD 4B Advanced Clinical ............................................ 11
RAD 4C Advanced Positioning-Cramium ........................ 1
Total 14
Second Semester Units
RAD 5A Special Procedures........................................... 2
RAD 5B Specialized Clinical ....................................... 11
RAD 5C Fluoroscopy ...................................................... 2
Total 15
Summer Semester Units
RAD 6 Concentrated Clinical ....................................... 6
Total 6

## Radiologic Technology Program Requirements

A "C" or better grade is required in each course. In addition to the program application requirements and Radiologic Technology course sequence, the following courses are required to apply for the associate degree:
Psychology 2 (formerly Psychology 7)
Speech 1 or 2
Sociology 1A
Electives to complete the associate in science degree requirements
Note: All application requirements, program requirements and selection criteria are subject to change. Students will enter the selection pool based on the current catalog or catalog supplement. Contact a Fresno City College health career counselor every semester for current information.

## REAL ESTATE

This curriculum is designed for the student who desires employment in the real estate field.

## ASSOCI ATE IN SCI ENCE DEGREE AND CERTIFI CATE OF ACHIEVEMENT

Complete 22 units of common-core courses required for all Real Estate Options.
REQUIRED COMMON-CORE COURSES Units
RE 40 Real Estate Principles ........................................... 3
RE 42 Legal Aspects of Real Estate .................................. 3
RE 54 Real Estate Finance................................................. 3
IS 15 Computer Concepts .............................................. 3
DS 17 Business Math ....................................................... 3
BA 18 Business and the Legal Environment .................. 4


| +SPEECH 1 | Intro to Public Speaking, or |
| :---: | :---: |
| SPEECH2 | Interpersonal Communication ........................ 3 |
| *HLTH2 | First Aid and Safety.................................... 2 |
| +PSY 2 | General Psychology ...................................... 3 |
| +PE | Physical Education Activity............................ 1 |
| Electives |  |
|  | Total 15 |
| SECOND YEAR |  |
| First Semester | Units |
| *REC 21 | Leadership................................................. 3 |
| +BIOL 1 | Principles of Biol, or |
| BIOL 3B | Natural History Applications............................. 3 |
| *PE | Physical Education Activity............................ 1 |
| ENGL 3 | Critical Reading \& Writing, or |
| SPEECH 25 | Argumentation ........................................... 3 |
| +ART 2 | Art Appreciation ......................................... 3 |
| Electives | 2 |
|  | Total 15 |
| Second Semest | er Units |
| *PE 22 | Intro to Physical Education ............................. 3 |
| *REC 19 | Occupational Work Experience ........................ 4 |
| +POLSCI 2 | American Government, or |
| POLSCI 10 | American Institutions ..................................... 3 |
| + MATH 101 | Elementary Algebra, or |
| MATH 102 | Geometry, or |
| MATH 250 | College Arithmetic ................................... 3 |
| *PE | Physical Education Activity........................... 1 |
| Electives | . 1 |
|  | Total 15 |

Recommended Electives: ART 10, 20; BA 5, 16, 18, 31; BT 1, 31; Cultural Studies; English; JOURN1; MUS 12; PHLL 1A; PHOTO 10; PE 31A, 33; SOC 2, 32; PHYSC 7; TA 34A, 34B. For students planning to transfer as Recreation Therapy majors: BIOL 24; BA 21, 33; HIT 10, PSY 21, 33, 39; SOC 10.
*Required major courses.
+Course requirements/ General Education requirements for degree.

## RESPI RATORY CARE PRACTITIONER -

MAJ OR \#4610
The respiratory care practitioner is a health care specialist involved in the therapy, management, diagnostic evaluation, education and care of patients with deficiencies and abnormalities which affect the cardiopulmonary system. The diagnostic and therapeutic responsibilities include the administration of medical gases, aerosols, environmental control systems, life sustaining mechanical ventilation, medication, chest physical therapy and specialized cardiopulmonary procedure. The respiratory care practitioner works closely with the physician in assess-
ing the patient and planning the proper respiratory care protocol.
The respiratory care program is designed to prepare the student for employment to participate as a member of the health care team by providing direct patient care.

Experience in respiratory care is provided in selected local hospitals where the student has learning experiences that are supervised by the Fresno City College faculty.

## State License and National Registration and Certification

Successful completion of the respiratory care program qualifies the graduate for an associate in science degree and eligibility to make application to take: (1) the licensing examination for the respiratory care practitioner license issued by the California Respiratory Care Board, (2) the national registry examination for advanced registered respiratory therapists administered by the National Board for Respiratory Care.

## Application Requirements

Enrollment into the respiratory care program is limited; however, there are no restrictions as to age, sex, race or marital status. To qualify for admission to the program, the applicant mustmeetall of the following conditions:

1. Complete and submit an Academic Summary Form for the Respiratory Care Program.
2. Have graduated from high school with a minimum average grade of 2.0 ( "C") or have an average score of 45 on the General Educational Development (GED) test.
3. Have completed one year of high school algebra, biology (with laboratory) and chemistry (with laboratory) or have completed their college equivalents (FCC Math 101, Biology 1 , and Chemistry 3 A with a grade of "C" or better).
4. Have attained a minimum average grade of " $C$ " (2.0) in completed college work.
5. Submit high school and college transcripts.

Note: It is the applicant's responsibility to request his/her transcripts from the necessary schools and to ensure that the transcripts are on file by the deadline. The college GPA and courses will have precedence over an applicant's high school GPAand courses.
PRIOR TO REGISTRATION for the semester in which the applicant is actually scheduled to take courses in respiratory care, the following conditions must be met to finalize program qualifications:

1. Submit evidence of physical and mental health (physical examination form to be completed by a physician).
2. Complete designated immunizations and diagnostic tests.
3. Attend clinical orientation.

Change of Name, Address, and/ or Telephone Number
Applicants and respiratory care students must keep the Respiratory Care Program Office informed of any change in name, address, and/ or telephone number. Failure of applicants to inform the Respiratory Care Program Office of this vital information may result in loss of entry into the program.

## Academic Requirements

In order to be eligible to take the licensing examination for the Respiratory Care Practitioner license issued by the California State Respiratory Care Board, the students must earn the associate in science de gree with a grade of " $C$ " or better in every course. Students earning less than a " $C$ " grade in any course must repeat that course in its entirety. In the case of earning less than a " $C$ " grade in a respiratory care course, the student may not progress in the major until the course is completed successfully. Courses may be repeated once only.
ASSOCI ATE IN SCI ENCE DEGREE
Respiratory Care Course Sequence (all courses must be completed with grade of " $C$ " or better)
FI RST YEAR
First Semester Units
RCARE 16 Patient Assessment ............................................. 3
RCARE 17 Fundamentals of Patient Mgmt......................... 4
RCARE 18 Physiology of Respiratory System....................... 2
RCARE 20 Intro to Respiratory Care.................................. 5
Total 14
Second Semester Units
RCARE 21 Applications \& Procedures ............................ 10
Total 10
SECOND YEAR
First Semester
RCARE 22 Units
RCARE 22 Clinical Applications I ...................................... 8
Total 8
Second Semester Units
RCARE 23 Clinical Applications II ..................................... 8
RCARE 25 Respiratory Disease........................................... 2
Total 10

## Respiratory Care Practitioner Program Requirements

( A " C " or better grade is required in each course.)
In addition to the program application requirements and the Respiratory Care Course Sequence, the following courses are required to apply for the associate degree:
Biology 24, Human Anatomy and Physiology or
Biology 20, Human Anatomy, and Biology 22, Human Physiology Biology 31, Microbiology
Physical Science 11, Introduction to Physics or Applied Technology 120

## Psychology 2

Speech 1 or 2

## Sociology 1A

Electives to complete the AS degree requirements
Note: All application requirements, program requirements, and selection criteria are subject to change. Sucidents will enter the selection pool based on the current catalog or catalog supplement. Contact a Fresno City College Health Career Counselor every semester for current information.

## SCHOOL TO WORK - MA J OR \#001

The School to Work Program is designed to provide students both educational and vocational opportunities. ACertificate of Completion will not only validate students' participation in the School to Work objectives of Fresno City College but will also enhance the employment opportunities of each student.

## CERTI FICATE OF COMPLETION <br> Units <br> Select a minimum of 15 units from the list of following list:

DEVSER 252 Developmental Study Skills................................ 1
DEVSER 260 Workability ..................................................... 3
DEVSER 262 Group Dynamics for the Disabled ...................... 2
DEVSER 265 Individualized Instructional Problems ............... 1
DEVSER 272 Consumer Service .............................................. 2
DEVSER 273 Independent Living Skills for DSP\&S Students... 2
DEVSER 275 Horticulture Skills I .......................................... 2
DEVSER 276 Horticulture Skills II ........................................ 2
DEVSER 277 Adapted Computer Literacy ............................... 2
DEVSER 278 Modified Word Processing ................................ 2
DEVSER 279 Modified Computer Applications......................... 2


MATH 277 Arithmetic for the Disabled ............................. 1-2

## SOCl AL SCI ENCE - MAJ OR \#7410

A program designed to acquaint the students with the diversity of subjects in the Social Sciences. The Social Sciences offer a broad study in human behavior. The major constitutes 20 units in the fields of American-Indian Studies, Anthropology, Child Development, Economics, Geography, History, Home Economics, Human Services, Political Science, Psychology, Sociology, and Women's Studies. The specific courses which are acceptable are listed under Section B.2 Other Social \& Behavioral Sciences, on page 30 of this catalog.

## SPANISH - MAJ OR \#5510

The Spanish Program is designed to prepare students for entry into a variety of career options requiring intermediate or better levels of fluency. The Spanish major also acquaints students with the cultures of Spanish speaking countries.

| ASSOCI ATE IN ARTS DEGREE |  |
| :---: | :---: |
| TOTAL UNITS REQUI RED ...................................... 26 |  |
| REQUI RED | E COURSES Units |
| CLS 29 HIST 29 | History of Mexico or |
| SPAN 3 | Intermediate Spanish or Placement or |
| SPAN 3NS | Spanish for Spanish Speakers........................... 4 |
| SPAN4 | High-Intermediate Spanish or Placement or |
| SPAN 4NS | Spanish for Spanish Speakers.......................... 4 |
| SPAN5 | Short Story: Mexico, Spain \& the U.S. ................ 3 |
| SPAN6 | Short Story: Latin America .............................. 3 |
| SPAN 7 | Advanced Spanish: Composition \& Grammar..... 3 |
| SPAN8 | Advanced Spanish: Conversation....................... 3 |
|  | Total 23 |

## COURSE OPTI ONS: SELECT 6 UNITS

| CLS 11 | Intro to Chicano-Latino Studies or |
| :---: | :---: |
| CLS 12 | Chicano History or |
| CLS 28 | Ancient Mexico .............................................. 3 |
| CLS 17 | Beginning Mexican Folklorico Dance or |
| CLS 18 | Latin Jazz or |
| CLS 27 | Advanced Mexican Folklorico Dance ............... 2-3 |
| CLS 20 | Chicano Art..................................................... 3 |
| ENGL 40 | Hispanic Literature emphasis only or |
| CLS 21 | Chicano Literature ......................................... 3 |

LING 10 Introduction to Language .................................... 3
Notes: 1. An Associate in Arts degree in Spanish will beawarded to any candidate who successfully completes a total of 60 units which include associatedegreerequirements and a minimum of 26 units of course work as listed above. Associate degree requirements are listed on page 28. General Education requirements for transfer certification are listed on page 35 .
2. Two Spanish courses can be used to fulfill the area "C" General Education requirement (in Humanities) for graduation or transfer.
3. Two of the following courses may be challenged according to Foreign Language Department policy: Spanish 1, 2,3,4.

## SPEECH COMMUNICATION - MAJ OR \#5430

The Speech Communication degree program is intended to prepare students for entry into a variety of career options requiring expertise in oral communication skills.

136 Fresno City College
Associate Degree and Certificate Programs

ASSOCI ATE IN ARTS DEGREE

TOTAL UNITS REQUI RED.
24

## REQUI RED CORE COURSES Units

SPEECH 1 Introduction to Public Speaking .....  3
SPEECH2 Interpersonal Communication .....  3
SPEECH4 Persuasion .....  3
SPEECH 8 Group Communication .....  3
SPEECH 20 Community Service .....  3
SPEECH 25 Argumentation .....  3
SPEECH 26 Forensics .....  3
Total 21
COURSE OPTI ONS: SELECT 3 UNITS ..... Units
JOURN1 Introduction to Mass Communication .....  3
LING 10 Introduction to Language .....  3
PHL 1C Ethics .....  3
PHLL 6 Introduction to Logic .....  3
TA/SPEECH 12 Oral Interpretation .....  3
Notes: 1. An associate in arts degree in Speech Communication will beawarded to any candidate who successfully completesa total of 60units which include associate degree requirements and a mini-mum of 24 units of course work as listed above. Associate degreerequirements are listed on page 28. General Education requirements for transfer cortification are listed on page 35 .
2. One Speech course can be used to fulfill the General Education, Oral Communication requirement for graduation or transfer. Courses used to fulfill major requirements may not be used to fulfill other General Education requirements.

## SURGI CAL TECHNOLOGY+

The Surgical Technology Program is designed for selected men and women who wish to prepare for a career as members of a multidisciplinary team caring for patients in the operating room and in the surgical practice setting. The program is a combination of academic study and clinical practice in metropolitan hospitals.
ASSOCIATE IN SCI ENCE DEGREE AND
CERTIFICATE OF ACHIEVEMENT
FIRST YEAR

| First Semester | Units |
| :---: | :---: |
| HTT 10 | Medical Terminology ..................................... 3 |
| MA2 | Pharmacology .............................................. 3 |
| SURGT 101 | Introduction to Surgical Technology ................ 3 |

Second Semester Units
BIOL 151 Elementary Human Anatomy \& Physiology, or
BIOL 24\# Human Anatomy \& Physiology, or
BIOL 20*+ Human Anatomy, and
BIOL 22* + Human Physiology ..... 4-5
SURGT 102 Surgical Techniques .....  3
SURGT 103 Surgical Procedures .....  3
Total 10-11
SECOND YEAR
First Semester ..... Units
BIOL31\# Microbiology .....  4
SURGT 104 Clinical Practicum .....  6
Second Semester ..... UnitsTotal 10
SPEECH2 Interpersonal Communication.
SURGT 105 Advanced Clinical Practicum. .....  6Total 9
\# Courses have prerequisites. See catalog or a counselor.*+ BIOL 20 and 22 may be substituted for BIIL 24 or 151.
Note: All courses listed are required for national certification, the certificate ofachievement, and the associate degree and must be completed with agrade of "C" or better. An associate in science degree will be awarded toany candidate who sucoessfully completes a minimum of 60 units thatinclude associate degree requirements and a minimum of $38-39$ unitsof course work listed above. Associate degree requirements are listed onpage 28. General Education requirements for transer certification arelisted on page 35 .
+Pending State Chancellor's Office approval.

## TEACHER AIDE

These certificate programs are designed to train personnel to serve as aides to classroom teachers at the elementary and secondary levels. They are also a useful means for prospective teachers to consider teaching as a profession.

## TEACHER AIDE: GENERAL - MAJ OR \#5970

| CERTIFICATE OF COMPLETION: 12 UNITS |  | Units |
| :---: | :---: | :---: |
| EDA 19 | Work Experience ... |  |
| EDUC 30 | Survey of Teaching ... |  |
| ENGL 125 | Writing Skills for College, or |  |
| ENGL 153 | English Fundamentals, or |  |
| ESL 67 | Writing \& Grammar, or |  |
| ENGL 1A | Reading \& Composition ... | .... 3-4 |
| MATH 250 | College Arithmetic, or |  |
| MATH 260 | Arithmetic Review, or |  |
| MATH 101 | Elementary Algebra, or |  |
| MATH 102 | Plane Geometry, or |  |
| MATH 103 | Intermediate Algebra. | . 3 |
| Total 12-13 |  |  |

```
ASSOCIATE IN SCIENCE DEGREE AND
CERTIFICATE OF ACHIEVEMENT - MAJ OR #5910
PROGRAM REQUIREMENTS .................................... }2
*REQUI RED CORE COURSES
    ( from Certificate of Completion)12
```

COURSE OPTI ONS: SELECT A MINIMUM OF 9 UNITS Units
ART 7 or 2 or 9 or 10 or 22 .....  3
EDA1 .....  2
ENGL 1A .....  4
GEOG 2 or 4 A or 4 B .....  3
HST 1 or 2 .....  3
HST 11 or 12 .....  3
MATH 101 or 102 or 103 or 45 .....  3
MUS 3 or 11 or 12 or 14 or 16 or 20 .....  3
POLSCI 13 .....  3
PSY2 or 38 or 39 .....  3
SPEECH1 or 2 .....  3
BIOL 1 or 3 .....  3
PHYSCI 11 or 12 or GEOL1 or 2 , or GEOG 1 or 7 or 8 .....  3
Notes: 1. *Required Core Courses: 12 units of core courses required for the

```certificate of completion listed above with the exception of Math250 and 260 which are nondegree applicable.
2. Courses used to meet the General Education requirements may not also be used to meet the 20 -unit major requirement.
3. An AS degree will be awarded to any Teacher Aide certificate of achievement candidate who successfully completes a total of 60 units. The 60 units must include associate degree requirements and 20 units of course work in the major as listed above.
4. Associate degreerequirements are listed on page 28 . General Education requirements for transfer certification are on page 35 .
```


## EDUCATIONAL AIDE: SPECIAL EDUCATION MAJ OR \#5981

```
\begin{tabular}{|c|c|c|}
\hline CERTI & COMPLETI ON & Units \\
\hline EDA6 & Survey of Special Education & ......... 3 \\
\hline EDA 7 & Learning Disabilities ............ & ...... 3 \\
\hline EDA 19 & Work Experience...... & \\
\hline
\end{tabular}
```


## TEACHER EDUCATION

Teaching is the profession that offers the greatest opportunity to have an impact on young people and on America's future. More than three million teachers will be needed over the next decade, 250,000 in California alone.

## TEACHING: ELEMENTARY

Students seeking careers as California public elementary school teachers must complete the BAdegree with a Liberal Studies major and the "fifth year" Multiple Subject Credential program. The first two years of transferable lower division course work and field experience of the five years required for the Multiple Subject California Teaching Cre dential can be completed at Fresno City College.
TEACHING: SECONDARY
Students seeking careers as public secondary school teachers at middle schools, high schools, and adult educational settings must complete a bachelor's degree in an approved major and the "fifth year" Single Subject Credential program. The first two years of transferable lower division course work and field experience in 18 approved majors required for the California Teaching Credential can be completed at Fresno City College.

## CBEST REQUI REMENT

Teaching credential candidates must pass the California Basic Education Skills Test (CBEST). Test preparatory classes are offered at Fresno city College.

## TEACHER AIDE/ PARAEDUCATOR

While nota teacher credential, the Fresno City College Teacher Aide/ Paraeducator associate degree, certificate of completion and certificate of achievement program prepares personnel to assist teachers at the elementary and secondary levels or to work in day-care centers, migrant training programs, community centers, and other child care institutions. Many of the courses required for the teacher aide/paraeducator also apply to teacher credential course work.

## IS TEACHING FOR ME?

Fresno City College's Education 30, Survey of Education, and Educational Aide 19, Vocational Work Experience, are particularly valuable for an understanding of education in the United States and to explore the teaching field before committing to a program of study.

## Satisfying the U.S. Constitution Requirement for a California Teaching Credential

The Education Code, Section 13132 requires teaching credential candidates either (1) to pass a satisfactory examination on the provisions and principles of the Constitution of the United States in a junior college, college or university of recognized merit or (2) to complete satisfactorily two semester units of work on the provisions and principles of the Constitution of the U. S. in any accepted university or college.

Candidates who wish to satisfy the U. S. Constitution requirement for a California teaching credential may do so by doing one of the following:

1. Pass Political Science 2 at Fresno City College. This course is offered in fall (day and night), spring (day and night) and summer sessions.
2. Pass Political Science 2 (American Government and Institutions) or Political Science 101 (American Constitution, Institutions, and Ide-
als) at California State University, Fresno. These courses are offered fall, winter (three weeks), spring and summer sessions.

## THEATRE ARTS - maj or \#5440

The Theatre Program emphasizes a "hands-on" approach and places special focus on producing the "well rounded" theatre artist. Students are encouraged to complete courses in both performance and technical theatre studies. Students who complete the program can successfully transfer to a competitive four-year university or conservatory or join the job market at entry-level positions.
ASSOCI ATE I N ARTS DEGREE
REQUI RED CORE COURSES UNITS
TA 24 Theatre Crafts Practicum ........................................ 3
TA 25 Theatre Crafts I ......................................................... 3
TA 30 Theatre Appreciation ........................................... 3
TA 31 Theatre History and Literature I.......................... 3
TA 32 Theatre History and Literature II ......................... 3
TA 34 Costume Practicum ............................................. 3
TA 35 Costume Crafts .................................................... 3
TA 42 Beginning Acting for Theatre Majors ................... 3
Total 24
Recommended electives: TA26, 28, 43
DESI GN/ TECHNI CAL THEATRE STUDI ES - MAJ OR \#5481

ASSOCI ATE I N ARTS DEGREE
UNITS
Required Core Courses listed above 24

| TA 26 | Theatre Crafts II, or |
| :--- | :--- |
| TA 27 | Introduction to Scene and Light Design, or |
| TA 36 | Costume Design ............................................3-4 |
| TA 28 | Introduction to Stage Makeup .............................. 2 |
|  |  |

Recommended electives: TA 43, 40.
PERFORMANCE STUDIES+

| ASSOCI ATE IN ARTS DEGREE |  | UNITS |
| :---: | :---: | :---: |
| Required Core Courses listed above |  | 24 |
| TA40 | Performance Practicum, or |  |
| TA24* | Theatre Crafts Practicum, or |  |
| TA34* | Costume Crafts Practicum. | ..... 3 |
| TA43 | Intermediate Acting........... | ........ 3 |
| TA44 | Actors Workshop................. | ........... 3 |
|  |  | tal 33 |

Recommended electives: MUS 26; TA 28

Allowable substitution: TA 41 can be taken in place of TA 42.
*In addition to required core courses.
Note: 1.An associate in arts degree requirements will be awarded to any candidate who successfully completes a total of 60 units, which include associate degree requirements and a minimum of 24 units of course work listed above.
2.Associate degree requirements are listed on page 28. General Education requirements are for transfer certification are listed on page 35.
3.Recommended electives for Physical Education: DANCE 10, 11, 12, 14, 16.
+Pending State Chancellor's Office approval.

## WELDI NG TECHNOLOGY

Welding technology provides an opportunity for students to prepare for employment in welding and metal occupations. Specific preparation is provided in welding and metal fabrication or pipe and steel certification procedures.
ASSOCI ATE IN SCI ENCE DEGREE AND
CERTIFI CATE OF ACHIEVEMENT
REQUIRED CORE COURSES
FIRST YEAR
First Semester Units
AT 10 Technical Computer Applications ...................... 2
AT 130 Industrial Math or
Math 101 Elementary Math ( or higher level) .................... 3
DRAFT 12 Board Drafting Practices .................................. 3
WELD 2A Intro to Welding Technology .............................. 5
Total 13
Second Semester Units
AT 21 Occupational Safety \& Health ........................... 2
AT 40 Preparing for Employment Opportunities .......... 3
AT 120 Industrial Science or
PHYSC 11 Introductory to Physical Science or
PHYS 2A General Physics I (or higher level) .................... 3
WELD 2B Advanced Processes MIG \& TIG ......................... 5

## METAL FABRICATION OPTION - MAJ OR \#8371

Instruction in the design and fabrication of metal projects by welding. Skills will be taught in design, manufacturing processes, production techniques, and material cost estimation.

## SECOND YEAR <br> First Semester Units <br> CADD 14 Computer Aided Drafting or ............................ 3 <br> WELD 3A Welding Design and Fabrication ........................ 5 <br> Second Semester Units <br> WELD 3B Advanced Welding Design and Fabrication ......... 5 <br> Elective ................................................................. 3 <br> PI PE AND STRUCTURAL STEEL CERTI FICATION OPTION - MAJ OR \#8372

Total 8

Total 8

Pre-employment training for structural steel and pipe welding technicians. An emphasis is placed on developing certification code-level proficiency in the use of shielded metal arc and flux cored arc welding procedures used in the construction of components on bridges, building, and pressure vessel systems.
SECOND YEAR
First Semester Units
WELD 4A Heavy Plate, Structural Steel Welding
\& Certification ............................................. 5
Elective .........................................................................
Second Semester Units
WELD 4B Pipe, Tube Welding and Certification ................... 5
Elective ................................................................................ 3
Total 8
Recommended Electives: CAM10, CADD 24, CADD 34, ENGR 10, ENGR 11, WELD 19, WELD 56.
Note: Associate degree requirements are listed on page 28.

## WOMEN'S STUDI ES - MAJ OR \#7610

This is a transfer program designed to inform students of the historical and contemporary issues affecting women's lives. Women's Studies offers a broad interdisciplinary approach to the study of women in society including their contrasting roles circumscribed by their culture and social institutions, their opportunities for self expression, achievement and self actualization, their relationships with parents, peers, intimates and children, and their concern for survival in a vio-lent-prone society. Because Women's Studies is interdisciplinary, it also provides an academic background helpful to those planning careers in law, business, education and medicine.

ASSOCI ATE IN ARTS DEGREE

PROGRAM REQUI REMENTS
20
REQUIRED CORE COURSES ..... Units
WSTS 10 Changing Roles of Women .....  3
WSTS/HS 25 Assertive Behavior. .....  2
COURSE OPTI ONS: SELECT 15 UNITS ..... Units
WSTS/ SOC 5 Sociology of Rape .....  3
WSTS/ SOC 7 Domestic Violence .....  3
WSTS/CLS 24 La Chicana ..... 3
WSTS/AFRAM 41 African-American Women in America ..... 3
WSTS 32 Women and Work ..... 3
WSTS/HEC 43 Women's Nutrition ..... 2
WSTS 44 Women and Chemicals ..... 2
BA44 Women in Management ..... 3
WSTS/GS 45 Re-Entry Career Planning ..... 1
WSTS/GS 46 Re-Entry Job Preparation .....  1
Note: Associate degree requirements are listed on page 28.
WORKABILITY VOCATIONAL EDUCATION (WAVE) - Ma or \#7000

WAVE is designed to provide disabled students with the necessary skills needed to succeed in paid employment. Certification of Wave will provide employers with verification of the students completion of the Wave program.
CERTIFICATE OF COMPLETION Units
DEVSER 280 Career Development .......................................... 8
DEVSER 281 Career Exploration .............................................. 8
Total 16

## COURSE DESCRIPTIONS

## Descriptions of courses offered at Fresno City College follow in alphabetical order.

It is the policy of this District that, unless specifically exempted by statute, every course, section or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by the District, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to Chapter 11, Division 2, Part VI, Title 5 of the Califormia Administrative Code, commencing with Section 51820.

Courses generally offered in only one of the two regular semesters are identified with a Fall (fall semester) or Spring (spring semester). Courses generally offered in only the evening program or during the summer session are so designated.

The State has mandated the maximum number of times a course may be repeated is three (3).

Repeatable courses are designated with the number of repeats in parenthesis following the course units and hours. For example,

| Course Name | Initial <br> Enroll. | Number of <br> Repeats | Max. Times <br> Taken |
| :--- | :---: | :---: | :---: |
| AJ 260 $($ Repeats $=1)$ | $\frac{1}{2}$ | 1 | 2 |
| ANTHRO 27 $($ Repeats $=2)$ | 1 | 2 | 3 |
| ART 251 $($ Repeats $=3)$ | 1 | 3 | 4 |

Note: Anumber of courses are cross referenced - the same course is listed in more than one area, department or discipline - usually with the same course number. Credit can be earned only once for cross-referenced courses. See the individual courselistings in the "Description of Courses" section of the catalog.

## Key to Graduation or Transfer Status

## Designations

Theidentification of thetransfer acceptance of Fresno City College courses by the California State University and University of California systems was one of the outcomes of the Fresno City College Student Success Project. Listed at the end of each course description, if applicable, are abbreviations identifying the transfer or graduation status of the course. The key to the abbreviations follows:

A Associate degree applicable
CSU Transferable to the California State University system
CSU-GE Meets the general education requirements for Califomia State University transfer certification. Completion of all courses in the Califormia State University General Education transfer certification pattern will permita student to transfer to a campus in the California State University system without having to complete additional lower division general education courses after transfer.

I Meets the requirements of the Intersegmental General Education Transfer Curriculum (IGETC). Completion of all IGETC requirements will permit a student to transfer to a campus in either the California State University or University of California system without having to complete additional lower division general education courses after transfer.

UC Transferable to the University of California system

## Schedule of Classes

The schedule of classes contains information necessary for registration and is available at the Admissions Office. Where no prerequisite is indicated, none is required except as explained in the section on "Prerequisites" which follows. Students should study the Schedule of Classes very carefully before completing registration.

## Course Credit Limitation

A student shall not be granted credit for the completion of a course that is a prerequisite for another course previously completed by the student.

## Prerequisites/Corequisites/Advisories

Students are urged to study the description of courses in this catalog to ensure that prerequisites are satisfied before registering for a course. Correct registration at an early date is important.

It is the student's responsibility to be certain that he/she has met the necessary prerequisite(s) for any course taken. The student may be dropped from any class where it is verified that the necessary prerequisite has not been taken.

It should be understood by the student that whether or not a prerequisite is specifically stated, the instructional staff of this college assumes that each student who enrolls in a transfer-level course possesses sufficient competencies in the areas of reading, writing, and mathematics to be able to profit from instruction.
Advisory indicates that the institution recommends, but does not require, certain course work betaken prior to enrolling in the described course.

Corequisiteindicates that the course must betaken simultaneously with another course if not already completed.

Prerequisiteis defined to mean a condition of enrollment that a student must meet in order to register in a course or program. Astudent may challengeany prerequisiteby completing the Prerequisite ChallengeForm available in the Counseling Center.

## Course Numbering System

1-99

100-199

200-299
300-399

## Course Classification System

Pursuant to revisions to the California Administrative Code, Title 5, Sections 55002 and 55805.5, all courses listed within the college catalog fall into one of the following classifications:

Credit, Degree Applicable
Credit, Nondegree Applicable
Noncredit
The majority of courses have retained their previous classification and are credit, degree applicable. The exceptions are as follows:

## A. Credit, Nondegree Applicable

Accounting 204A
Accounting 260
Accounting 271

Survey of Financial Accounting
Accounting Skills Lab
Accounting Using QuickBooks Beginning

Accounting 272

Admin of Justice 200
Admin of Justice 201
Admin of Justice 202
Admin of Justice 203
Admin of Justice 204
Admin of Justice 205
Admin of Justice 206
Admin of Justice 207
Admin of Justice 208
Admin of Justice 209
Admin of Justice 210
Admin of Justice 211
Admin of Justice 212
Admin of Justice 213
Admin of Justice 214
Admin of Justice 215
Admin of Justice 216
Admin of Justice 217
Admin of Justice 218
Admin of Justice 219
Admin of Justice 260
Admin of Justice 261
Admin of Justice 270
Admin of Justice 271
Admin of Justice 272

Admin of Justice 273
Admin of Justice 274
Admin of Justice 275
Admin of Justice 276
Admin of Justice 277
Admin of Justice 278
Admin of Justice 279
Admin of Justice 280
Admin of Justice 281
Admin of Justice 282

Admin of Justice 285
Admin of Justice 286
Admin of Justice 287
Admin of Justice 290
Admin of Justice 291
Admin of Justice 292
Admin of Justice 293
Admin of Justice 294
Admin of Justice 295
Admin of Justice 296

Accounting Using QuickBooks -
Intermediate
Interview/Interrogation Techniques
Explosives Recognition/Response
EthDilemmas in Pub Stty Agncy
Cust Serv Trng for Law Enforcmnt
Instructor Training
Search Warrant Execution
Drug Influence Update
Survival Spanish For Law Enforcement
Tactical Communication
Tactical Carbine Instructor
Firearms/Tactical Handgun, Advanced
Expandable Straight Baton Instructor
Tactical Shotgun Instructor
Firearms/Sub-Machine Gun Instructor
Swat Training
K-9 Handler Update Course
Criminal Investigation
Background Investigation
Interview And Interrogation Advanced
Requalification - Basic Course
Police Cadet Adm
FCCCadet Fld
Basic Police Academy
Bas Res Police Acad, P.C. 832
Basic Reserve Police Academy Level 3,
Part 2
Basic Reserve Police Academy, Level 2
Basic Reserve Police Academy, Level 1
Advanced Officer Acad
Basic Supervisors
Community Service Officer
Public Safety Dispatcher
Citizens' Police Academy
Basic Correctional Academy
Adv Correctional Officer Academy
PC 832 \& Expandable Baton (Intensive
Format)
Probation Core Course
Juvenile Counselor CORE Course
Field Tactics for Probation Officers
Firearms Instructor Course
Field Training Officer
PR-24 Baton Instructor Course
Drug Influence- H\& S 11550
Officer Safety
Traffic Accident Investigation
Homicide Investigation

| Ammin of Justice 297 | Baton and Defense Tactics Seminar |
| :---: | :---: |
| Admin of Justice 298 | Sexual Assault Investigation |
| Admin of Justice 299 | Basic Bicycle Patrol |
| Air Conditioning 260B | Electricity for Air Conditioning |
| Air Conditioning 260C | Residential Heating |
| Air Conditioning 260D | Advanced Troubleshooting |
| Applied Technology 212 | Computer Skills Lab |
| Art 251 | Open Art Studio |
| Auto Tech 261 | Clean Air Car- Diag \& Rep |
| Auto Tech 261A | The Clean Air Car I |
| Auto Tech 261B | The Clean Air Car II |
| Auto Tecch 261C | BAR Update: OBD II |
| Auto Tech 262A (A6) | Electrical/Electronic Training <br> Program- BAR/ASE (Alt) |
| Auto Tech 262 B (A8) | Engine Performance Training <br> Program- BAR/ASE (Alt) |
| Auto Tech 262 C (L1) | AOWEngine Performance Training <br> Program- BAR/ASE (Alt) |
| Auto Tech 281A | Automatic Trans |
| Auto Tech 281B | Automatic Trans |
| Auto Tech 282A | Suspen/Wheel Align |
| Auto Tech 282B | Auto Braking Systems |
| Auto Tech 283A | Tuneup \& Diag |
| Auto Tech 283B | Electrical Systems |
| Auto Tech 284 | Auto Air Conditioning |
| Auto Tech 285 | Auto Engines |
| Auto Tech 292 | Cert Preparatory |
| Auto Tech 294 | Lamp/Brk Adj Prep |
| Biology 261 | Internet and Computer Skills Lab |
| Biology 270 | Biology Readiness |
| Business \& Technology 250 | Office Skills Labs |
| Business \& Technology 270 | Business Math \& Ten Key |
| Business \& Technology 271 | Grammar Fundamentals |
| Business \& Technology 272 | Office Procedures |
| Business \& Technology 273 | Filing |
| Business \& Technology 274 | Introduction to Mircosot Outlook |
| Business \& Technology 275 | Accelerated Lotus |
| Business \& Technology 276 | Accelerated dBASE |
| Business \& Technology 277 | Accelerated Excel |
| Business \& Technology 278 | Accolerated Access |
| Cabinetmaking Tech 260 | Woodworking |
| Cabinetmaking Tech 263 | Advanced Cabinetmaking Lab |
| Child Development 261 | Intro to Foster Parenting |
| Child Development 262 | Independent Living Skills |
| Computer Science 261 | Internet and Computer Skills Lab |
| Decision Science 270 | Business Math Skills |
| Dental Hygiene 200 | Clinical Dental Hygiene IV |
| Developmental Services 252 | Develop Study Skills |
| Developmental Services 260 | Workability |


| Developmental Services 262 | Group Dynamics for Disabled |
| :---: | :---: |
| Developmental Services 265 | Indiv Instruc Problems |
| Developmental Services 272 | Consumer Skills |
| Developmental Services 273 | Independent Living Skills |
| Developmental Services 275 | Horticulture Skills I |
| Developmental Services 276 | Horticulture Skills II |
| Developmental Services 277 | Adapted Computer Literacy |
| Developmental Services 278 | Modified Word Processor |
| Developmental Services 279 | Modified Computer Applications |
| Developmental Services 280 | WAEE Career Development |
| Developmental Services 281 | WALE Career Exploration |
| Developmental Services 282 | Workforce Prep |
| Developmental Services 291 | Strategies for Academic Success |
| Developmental Services 292 | College Avareness Survival Skills |
| Education 200A | CBEST Preparation: English |
| Education 200B | CBEST Preparation: Mathematios |
| Educational Aide 260 | Survey of Special Education |
| Educational Aide 261 | Ed Aide Tmg- Learn Disabilities |
| Electrical Systems Tech 261 | Networking Essentials- Instructor Training |
| Electrical Systems Tech 262 | Router Theory and TechnologyInstructor Training |
| Electrical Systems Tech 263 | Advanced Routing and SwitchingInstructor Training |
| Electrical Systems Tech 264 | Advanced Networking and |
|  | Management- Instructor Training |
| Electrical Systems Tech 272 | Introduction to Electronics |
| Electrical Systems Tech 273 | Industrial Motor Control |
| English 250 | Basic Writing |
| English 252 | Reading Improvement |
| English 260 | Basic Reading |
| English 262 | Writing Improvement |
| English 265 | Reas \& Dec Mkg for Daily Liv |
| ESL262 | Basic Academic Study Skills |
| ESL263R | Reading and Vocabulary |
| ESL263W | Grammar and Writing |
| ESL264R | Reading and Vocabulary |
| ESL264W | Grammar and Writing |
| ESL 265R | Reading and Vocabulary |
| ESL265W | Grammar and Wiriting |
| Fire Technology 261 | EMT 1 Refresher |
| Fire Technology 261A | EMT 1 Refresher (Fire Serv) |
| Fire Technology 261B | EMT 1 Refresher (Fire Serv) |
| Fire Technology 261C | EMT 1 Refresher (Fire Serv) |
| Fire Technology 261D | EMT 1 Refresher (Fire Serv) |
| Guidance Studies 260 | Personal Management Strategies |
| Guidance Studies 270 | Orientatn for Academic Succ |
| Guidance Studies 275 | Planning Your Education |
| Health Science 211 | Multi-Skilled Health Technician Trainin |


| Human Services 261 | Intro Foster Parent |
| :---: | :---: |
| Human Services 262 | Independent Living Skills |
| Information Systems 231 | Network+ Preparation |
| Information Systems 238 | At Systems Software |
| Information Systems 239 | INET+ Preparation |
| Information Systems 260 | Computer Skills Lab |
| Information Systems 261 | Intemet Skills Lab |
| Information Systems 272 | Introduction to Computers |
| Information Systems 274 | Beginning Excel |
| Information Systems 275 | Accelerated Lotus |
| Information Systems 276 | Accelerated dBASE |
| Information Systems 277 | Accelerated Excel |
| Information Systems 278 | Accelerated Access |
| Marketing 250 | Computerized Marketing |
| Marketing 251 | Introduction to Marketing |
| Marketing 252 | Customer Service |
| Marketing 253 | Personal Development |
| Marketing 254 | Business Presentations |
| Marketing 255 | Telemarketing |
| Marketing 256 | Call Center Telemarketing |
| Math 250 | College Arithmetic |
| Math 251 | Health Science Math |
| Math 255 | Prealgebra |
| Math 260A | Arithmetic Review: Whole Numbers |
| Math 260B | Artihmetic Review: Fractions |
| Math 260C | Artihmetic Review: Decimals |
| Math 260D | Artihmetic Review: Percents |
| Math 260E | Artihmetic Review: Measurement |
| Math 260F | Artihmetic Review: Pre Algebra |
| Math 265 | Math Problem Solving |
| Math 270 | Fundamental Math |
| Math 277 | Arithmetic for Learn Disabled |
| Political Science 274 | International Relations |
| Special Studies 277 | Apprenticeship |
| WAIE 201 | Developing Ind Vov Evaluations |
| WAIE 202 | Situational Assessment |
| B. Noncredit |  |
| Apprenticeship 360 | Intro to Apprent Trng |
| Apprenticeship 361/3B | Diesl \& Hry Dty Mech |
| Apprenticeship 361/6J | Roofing |
| Clerical Training 370 | Office Asst Applications |
| Clerical Training 372 | Computerized Accounting |
| Clerical Training 374 | Fundamentals of Literacy |
| Clerical Training 376 | General Office Techniques |
| Developmental Services 359 | Differential Learn Diag |
| Music 380 | Concert Band |
| Music 381 | Jazz Ensemble |
| Music 382 | Int/Adv Brass |


| Music 383 | Int/Adv Woodwinds |
| :--- | :--- |
| Music 384 | Int/Adv Strings |
| Music 385 | Symphony Orchestra |
| Music 386 | Int/Adv Percussion |
| Music 387 | College Choir |
| Music 388 | City Singers |
| Music 389 | Opera\&MusTheatr Wkshp |
| ST 300 | Tutoring |
| Special Studies 377 | Zero Unit, No Grade Sp St |
| Theatre Arts 348 | Senior Play Production |
| Career \& Technology Center Courses |  |
| Auto Mechanics 371 | Engine Repair |
| Auto Mechanics 372 | Engine Performance |
| Auto Mechanics 373 | Brakes/Suspension |
| Auto Collision Repair 370 | Auto Col Rep/Paint Refin |
| Building Maintenance 370 | Building Maintenance |
| Indust Training 371 | Warehouse and Distribution Careers |
| Maint Mechanic 370 | Fund-Weld/Machine Shop |
| Maint Mechanic 371 | Fund Hydraul/Pneumatics |
| Maint Mechanic 372 | Electrical Fundamentals |

## SCCCD INTRA-DISTRICT ARTICULATED COURSES, COMMON COURSES, AND IN-LIEU COURSES

| FRESNO | CITY COLLEGE | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| ACCTG 4A | Princ of Fin Accty | ACCTC | Prin of Acttg |
| ACCTG 4B | 3 Princ of Man Acctg | ACCTG | Princ of Acctg |
| ACCTG 31 | Computerized Acctg | ACCTG | Computerized Acctg |
| ANTHRO | 1 Physical Anthro | ANTH | 1 Physical Anthro |
| ANTHRO 2 | 2 Cultural Anthro | ANTHR | 2 Cultural Anthro |
| ANTHRO | 3 Intro to Arch \& Prehistory | ANTHR | Intro to Arch \& Prehistory |
| ART 2 | Art Appreciation | ART 2 | Art Appreciation |
| ART 5 | Art History 1 | ART 5 | Art History 1 |
| ART 6 | Art History 2 | ART 6 | Art History 2 |
| ART 6H | Honors Art History 2 | ART 6H | Honors Art History 2 |
| ART 7 | Beginning Drawing | ART 7 | Beginning Drawing |
| ART 9 | Beg Paint: Oil \& Acrylic | ART 9 | Beg Painting: Oil \& Acrylic |
| ART 10 | Beginning Ceramics | ART 10 | Beginning Ceramics |
| ART 12 | Cratt Design | ART 12 | Crafts Design |
| ART 13 | Beg Watercolor | ART 13 | Beginning Watercolor |
| ART 17 | Inter Drawing | ART 17 | Inter Drawing |
| ART 19 | Int Paint Oil/Acr | ART 19 | Int Paint Oil/Acr |
| ART 20 | Inter Ceramics | ART 20 | Inter Ceramics |
| ART 23 | Inter Watercolor | ART 23 | Inter Watercolor |
| ASL 1 | Beg ASL | ASL1 | Beg ASL |
| ASL2 | High Beg ASL | ASL2 | High Beg ASL |


| ESNO | TY COLLEGE | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: |
| ASL 3 | Intermediate ASL | ASL 3 | Intermediate ASL |
| ASL 4 | High Inter ASL | ASL 4 | High Inter ASL |
| ASTRO 10 | Basic Astronomy | SCI 3 | Intro to Astronomy |
| AUTOT 9 | Auto Essentials | AUTOT 9 | Auto Essentials |
| BA5 | Business Comm | BA5 | Business Comm |
| BA10 | Intro to Business | BA10 | Intro to Business |
| BA18 | Bus \& the Legal Envir BA18 |  | Bus \& the Legal Envir |
| BA27 | Stud In Free Enterprise | BA27 | Stud In Free Enterprise |
| BA33 | HR in Bus | BA33 | HRs in Bus |
| BA34 | Invest Fundament | BA34 | Invest Fundamen |
| BA38 | Opr of Small Bus | BA38 | Opr of Small Bus |
| BA40 | Man Quality Organiz | s B15 | Mangement of People |
| BIOL 1 | Principles of Biology | BIOL1 | Principles of Biology |
| BIOL4 | Principles of Zoology | BIOL4 | Principles of Zoology |
| BIOL6 | Principles of Botany | BIOL6 | Principles of Botany |
| BIOL 20 | Human Anatomy | BIOL 20 | Human Anatomy |
| BIOL 22 | Human Physiology | BIOL 22 | Human Physiology |
| BIOL31 | Microbiology | BIOL31 | Microbiology |
| BT 4 | Ten-Key Calculation | BA46 | Calculator Applications |
| CHDEV2 | Intro to Early Chldhd Educ | CHDEV2 | Intro to Early Chldhd Educ |
| CHDEV6 | Infant-Child Hith \& Safety | CHDEV6 | Infant-Child Hith \& Safety |
| CHDEV7 | Infant-Toddler Dev \& Care | CHDEV7 | Infant-Toddler Dev \& Care |
| CHDEV8A | rog for Sch-Age Care | CHDEV 8A Prog for Sch-Age Child Care |  |
| CHDEV8 | Sch-Age: Growth \& Dev | CHDEV 8B Prog for School Age Child Care |  |
| CHDEV1 | oung Child with Spec N | CHDEV35 Exceptional Children |  |
| CHDEV3 | Child, Family \& C | CHDEV30 Child, Family \& Comm |  |
| CHDEV3 | Early Chldhd Prog \& Proc | CHDEV37A Early Chldhd Prog \& Proc |  |
| CHE | B Early Chldhd Prog \& Proc | CHDEV37B Early Chldhd Prog \& Proc |  |
| CHDEV39 | Child Developmen | CHDEV39 Child Development |  |
| CHDEV40A | dmin of Early Chldhd | CHDEV 40A Admin of Early Chldhd Prog |  |
| CHDEV4 | B Adv Adm of Early Chldhd | CHDEV 40B Adv Adm of Early Chldhd Prog |  |
| CHDEV4 | Super of Adults in ECE | CHDEV45 super of Adults in ECE Class |  |
| CHEM 1A | eneral Chemistry | CHEM1A General Chemistry |  |
| CHEM1B | Gen Chem \& Qual Ana | CHEM 1B Gen Chem \& Qual Ana |  |
| CHEM3A | Intro Gen Chem | CHEM3A Intro Gen Chem |  |
| CHEM3B | Intro Gen \& Biol Chem | CHEM 3B Intro Gen \& Biol Chem |  |
| CHEM8 | Ele Organic Chem | CHEM8A Ele Organic Chem |  |
| CHEM 28 | Organic Chemistry | CHEM 28A Organic Chemistry |  |
| CHEM 28 | Organic Chemistry | CHEM 28B Organic Chemistry |  |
| CHEM 29 | Organic Chem Labo | CHEM 29A Organic Chem Lab |  |
| CHEM 298 | Organic Chem Lab | CHEM29B Organic Chem Lab |  |
| CRIM1 | Intro to Criminology | CJ1 | Intro to Criminal Justice |
| CRIM3 | Le Aspects of Evidence |  | Criminal Evidence |
| CRIM4 | Princ \& Proc of Justice Sys | CJ4 | Criminal Legal Procedure |
| CRIM5 | Community Relations | CJ 5 | Community Relations |
| CRIM 6 | Concepts of Criminal Law | CJ 6A | Criminal Law |
| CRIM 7 | Conc of Enforcement Servs | CJ 7A | Police Operations \& Procedures |
| CRIM 8 | Criminal Investigation | CJ 8 | Investigation of Crime Scene |


| FRESNO CITY COLLEGE | REEDLEY COLLEGE |
| :---: | :---: |
| CRIM 11 Juvenile Delinquency | CJ 11 Juvenile Procedures |
| CRIM 12 Police Report Writing | CJ 12 Justice System Comm |
| CRIM 20 Intro to Corrections | CJ 20 Correctional Institutions |
| CSCI 20 Prog in the Fortran Lang | CSCI 20 Prog in the FORTRANLang |
| CSCI 20 Prog in the Fortran Lang | ENGR 22 FORTRAN 77 Programming |
| CSCI 40 Prog Cons \& Methods I | CSCI 40 Prog Concepts \& Methods I |
| CSCI 41 Prog Cons \& Methods II | CSCI 41 Prog Concepts \& Methods II |
| DS117 Business Math | DS17 Business Math |
| ECON 1A Intro to Macroecon | ECON 1A Intro to Macroecon |
| ECON 1AH Honors Intro to Macroecon | ECON 1AH Honors Intro to Macroecon |
| ECON1B Intro to Microecon | ECON1B Intro to Microecon |
| EDUC 200ACBEST Prep Engl | EDUC 200ACBEST Prep Engl |
| EDUC 200B CBEST Prep Math | EDUC 200B CBEST Prep Math |
| ENGL 1A Read \& Composition | ENGL 1A Read \& Composition |
| ENGL 1AH Honors Read \& Compo | ENGL 1AH Honors Read and Compo |
| ENGL 1B Intro to the Study of Lit | ENGL 1B Intro to the Study of Lit |
| ENGL 1BH Hon Intro to the Stay of Lit | ENGL 1BH Honors Literature |
| ENGL3 Critical Read \& Writing | ENGL3 Critical Read \& Writing |
| ENGL 3H Hon Critical Read \& Writ | ENGL 3H Hon Critical Read \& Uriting |
| ENGL 125 Writing Skills for College | ENGL 125 Wiiting Skills for College |
| ENGL 126 Read Skills for College | ENGL 126 Read Skills for College |
| ENGL 44A World Literature | ENGL44A World Literature |
| ENGL 44B World Literature | ENGL 44B World Literature |
| ENGL 46A English Lit to 1800 | ENGL46A English Lit to 1800 |
| ENGL 46B Eng Litfrom 1800 to Pres | ENGL46B Eng Lit from 1800 to Present |
| ENGL 250 Basic Writing | ENGL 250 Basic Writing |
| ENGL 252 Writing Improvement | ENGL 252 Writing Improvement |
| ENGL260 Basic Reading | ENGL260 Basic Reading |
| ENGL262 Read Improvement | ENGL 262 Read Improvement |
| ENGR 2 Graphics | ENGR 2 Graphics |
| ENGR 4 Engr Materials | ENGR 3 Engr Materials |
| ENGR 6 Circuits with Lab | ENGR 6 Circuits with Lab |
| ENGR 8 Statics | ENGR 8 Statics |
| ESL68 Read for ESL College Stud | ENGL 26 Reading Skills for College |
| EST 61 Networking Fund | IS 49A LANFund - Cisco 1 |
| EST 62 Router Theory \& Tech | IS 49B RouterTheory \& Tech- Cisco II Tech |
| EST 63 Adv Routing \& Switching | IS 49C Adv Rout \& Switch - Cisco III Switch |
| EST 64 Adv Networking \& Man | IS 49D Adv Network \& Man - Cisco IVMan |
| FILM1 Intro to Film | FILM1 Intro to Film |
| FN1 Princ of Food Prep | FN 1 Principles of Food Prep |
| FN35 Nutrition \& Health | FN35 Nutrition \& Health |
| FN40 Nutrition | FN40 Nutrition |
| FN41 Sports Nutrition | FN41 Sports Nutrition |
| FN42 Child Nutrition | FN42 Child Nutrition |
| FRENCH1 Beg French | FRENCH 1 Beg French |
| FRENCH2 High Beg French | FRENCH2 High Beg French |
| FRENCH 3 Intermediate French | FRENCH3 Intermediate French |
| FRENCH4 High Inter French | FRENCH4 High Inter French |


| FRESNO CI | CITY COLLEGE | REEDLEY COLLEGE |
| :---: | :---: | :---: |
| GEOG 2 | Cultural Geography | GEOG2 Cultural Geography |
| GEOG 4A | World Geography | GEOG 4A World Geography |
| GEOG 4B | World Geography | GEOG 4B World Geography |
| GEOL1 | Physical Geology | GEOL1 Physical Geology |
| GEOL2 | Historical Geology | GEOL2 Historical Geology |
| GERMAN1 | 1 Beg German | GERMAN1 1 Beg German |
| GERMAN2 | High Beg German | GERMAN2 High Beg German |
| GERMAN3 | Inter German | GERMAN3 Inter German |
| GERMAN4 | 4 High Inter Geman | GERMAN4 High Inter German |
| GS47AB | College Study Skills | GS47 Learning Strategies |
| GS150 | College Introduction | GS 120 College Introduction |
| HEC7 | Interior Design | FM30 Interior Design |
| HST 1 | West Civilization to 1648 | HST 1 Wester Civilization to 1648 |
| HST 2 | West Civilization Since 164 | 4HST 2 Westem Civilization Sinee 1648 |
| HST 11 | Hist of the USto 1865 | HST 11 Histof the USto 1865 |
| HST 12 | Histof the US since 1865 | HST 12 Histof the US since 1865 |
| HTH1 | Cont Health Issues | HITH1 Contemporary Health Issues |
| HLTH2 | FirstAid and Safety | HTH2 First Aid and Safety |
| HONORS 1 | 1 Honors Colloquium | HONORS 1 Honors Colloquium |
| IS 15 | Computer Concepts | IS15 Computer Concepts |
| IS18 | Spreadsheet Fund | IS18 SpreadsheetFund |
| IS26 | Database Fund | IS26 Database Fund |
| IS40 | Intemet Basics | IS40 Intemet Basics |
| IS41 | Word Wide Web Reesarch | IS41 Word Wide Web Research |
| Journ1 | Intro to Mass Comm | JOURN1 Intro to Mass Comm |
| Journ3 | Newswriting | Journ3 Newswiting |
| LING 10 | Intro to Language | LING 10 Introduction to Language |
| MATH101 | Elementary Algebra | MATH101 Elementary Algebra |
| MATH 102 P | Plane Geomethy | MATH 102 Plane Geometry |
| MATH 103 I | Intermediate Algebra | MATH 103 Intermediate Algebra |
| MATH4A | Trigonomehy | MATH4A Trigonometry |
| MATH4B | Precalculus | MATH4B Precalculus |
| MATH5A | Math Analysis I | MATH5A Math Analysis I |
| MATH5B | Math Analysis II | MATH 5B Math Analysis II |
| MATH6 | Math Analysis III | MaTH6 Math Analysis III |
| MATH7 | Intro to Diff Equations | MATH7 Into to Differential Equations |
| MATH11 | Elementary Statistics | MATH11 Elementary Statistics |
| MATH26 | Elem Linear Algebra | MATH26 Elem Linear Algebra |
| MATH45 | Contemporary Math | MATH45 Contemporary Math |
| MATH250 | College Arithmetic | MATH250 College Arithmetic |
| MKTG 10 | Marketing | MKTG 10 Marketing |
| MKTG 11 | Salesmanship | MKTG 11 Salesmanship |
| MKTG 12 | Advertising \& Prom | MKTG 12 Advertising and Prom |
| MKTG 14 | Retailing | MKTG 14 Retailing |
| MKTG 17 | Visual Merchand | MKTG 17 Visual Merchand |
| MUS 1A | Music Theory I | MUS 1A Music Theory I |
| MUS1B M | Music Theory II | MUS1B Music Theory II |
| MUS 2A | Music Theory III | MUS 2A Music Theory III |


| FRESNO CITY COLLEGE | REEDLEY COLLEGE |  |
| :--- | :--- | :--- |
| MUS 2B | Music Theory IV | MUS 2B | Music Theory IV 1 MUS

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Course Descriptions

| FRESNO | TY COLLEGE | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: |
| PHIL 1A | Ths of Know, Exist \& Beauty | yPHIL 1 | General Philosophy |
| PHIL 1C | Ethics | PHLL 1C | Ethics |
| PHIL 1D | World Religions | PHIL 1D | , |
| PHLL 6 | Introduction to Logic | PHIL6 | Introduction to Logic |
| P | Basic Black \& White | PHOTO 10 Basic Black \& White |  |
| PHYS 2A | General Physics 1 | PHYS 2 | General Physics 1 |
| PHYS 2B | General Physics 2 | PHYS 2B | General Physics 2 |
| PHYS4A | Phys for Scientists \& Engs | PHYS4 | yys for Scientis |
| PHYS4B | Phys for Scientists \& Engs | PHYS | Physics for Scientists \& Engineer |
| PHYS4C | Phys for Scientists \& Engs | PHYS $4 C$ | Physics for Scientists \& Engineers |
| POLSCI 2 | American Govermment | POLSC | American Govermment |
| POLSCI | American Institutions | POLSCI 10 American Institutions |  |
| PSY 2 | General Psychology | PSY2 | General Psychology |
| PSY 2H | Hon Gen Psy | PSY 2H | Hon Gen Psy |
| PSY5 | Social Psychology | PSY | Social Psychology |
| PSY 25 | Human Sexuality | PSY 25 | Human Sexuality |
| PSY 33 | Personal \& Social Adjust | PSY 33 | Personal \& Social Adjust |
| RE 40 | Real Estate Principles | RE 40 | Real Estate Principles |
| RE41 | Real Estate Practice | RE41 | Real Estate Practice |
| RE 42 | Legal Aspects of Real Estate | RE 42 | Legal Aspects of Real Estate |
| RE 43 | Real Estate Appraisal I | RE 43 | Real Estate Appraisal |
| SOC 1A | Intro to Sociology | SOC 1A | tro to Sociology |
| SOC2 | American Minority Groups | SOC2 | American Minority Groups |
| SOC 32 | Courtshp, Marriage, Div | SOC 32 | Courtshp, Marriage, Div |
| SPAN 1 | Beginning Spanish | SPAN1 | Beginning Spanish |
| SPAN2 | High Beg Spanish | SPAN2 | High Beg Spanish |
| SPAN3 | Inter Spanish | SPAN3 | Inter Spanish |
| SPAN4 | High Inter Spanish | SPAN4 | High Inter Spanish |
| SPEECH 1 Intro to Public Speak SPEECH1 Intro to Public Speaking |  |  |  |
| SPEECH2 Interpersonal Comm SPEECH2 Interpersonal Comm |  |  |  |
| SPEECH 12 Fund of Interpretation |  | SPEECH 12 Fund of Interpretation |  |
| TA30 | Theatre Appreciation | SPEECH 30 Theatre Appreciation |  |
| TA33 | Shakespeare in Perform | ENGL47 Shakespeare |  |
| TA41 | Elem Techn of Acting | SPEECH39AElem Techn of Acting |  |
| TA43 | Inter Techn of Acting | SPEECH | B Inter Techn of Acting |
| WELD 2A | Intro to Welding Tech | MFGT | Basic Welding |
| WELD 2B | Adv Processes MIG \& TIG | MFGT 3 | Welding (MIG-TIG) |
| WELD 3A | Weld Design \& Fabrication | MFGT 3 | Welding Fabrication |
| WELD 3B | Adv Weld Design \& Fab | MFGT 33B | Adv Welding Fabr- Cerrification |

## COURSES

## ACCOUNTING (ACCTG)

## 4A PRINCIPLES OF FINANCIAL ACCOUNTING

4 units, 4 lecture hours, 1 lab hour
ADVISORY: Eligibility for English 125 or English 126 or ESL 153 or ESL 67 and 68, and Math 101 recommended.

Transaction analysis, financial statements, forms of business ownership, accounting principles, statement analysis and interpretation and computer applications utilizing accounting information. (CAN BUS 2) (A, CSU, UC)

## 4B PRINCIPLES OF MANAGERIAL ACCOUNTING

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A.
Accounting for corporations, manufacturing accounting, managerial controls, budgeting, and financial statement analysis. (CANBUS 4) (A, CSU, UC)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to accounting. Learning objectives established specific to accounting. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 31 COMPUTERIZED ACCOUNTING

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Accounting 4A or BT 31. ADVISORY: IS 15 or equivalent, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Accounting procedures and applications, including general ledger, accounts receivable, accounts payable, inventory, and payroll, using various commercial software packages and templates on microcomputers. (A, CSU)

## 34 ACCOUNTING SPREADSHEETS

3 units, 3 lecture hours, 1 lab hour
COREQUISITE: Accounting 4A or Business \& Technology 31.
Spreadsheets applied to accounting problems. Creating a worksheet, formatting the worksheet, using formulas and functions, creating reports and graphs, and applying advanced Excel applications to accounting problems. (A, CSU)

## 55 ACCOUNTING METHODS

1 unit, 1 lecture hour
COREQUISITE: Accounting 4A or Business \& Technology 31.
Accepted accounting methods for accounts receivable, notes receivable, inventory and fixed assets, including their impact on reported profitability and financial position. (A, CSU)

## 56 PAYROLL ACCOUNTING

2 units, 2 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A or Business \& Technology 31.
Payroll accounting including computing gross wages, tax withholdings and net pay; maintaining payroll records; journalizing payroll transactions; and preparing federal tax forms. (A, CSU)

## 70 ACCELERATED QUICKBOOKS

1 unit, 1 lecture hour, 1 hour lab
COREQUISITE: BT 31 or Accounting 4A.
Basic computerized accounting using the QuickBooks program. (A, CSU)

## 73 MAS90 FUNDAMENTALS

2 units, 2 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A or Business \& Technology 31.
MAS90 applications including setting up companies, general ledger, sales order processing, accounts receivable, purchasing, accounts payable, payroll, and inventory management. (A, CSU)

## 151 INTERMEDIATE ACCOUNTING

3 units, 3 lecture hours, (Formerly Accounting 51)
PREREQUISITE: Accounting 4A. ADVISORY: Eligibility for English
125 and 126 or English 153 or ESL 67 and 68 recommended.
Procedures for private business, industry, government, nonprofit organizations, partnership, and corporation accounts. (A)

## 152 COST ACCOUNTING

3 units, 3 lecture hours, (Formerly Accounting 52)
PREREQUISITE: Accounting 4B. ADVISORY: Eligibility for English
125 and 126 or English 153 or ESL 67 and 68 recommended.
Job order, process, standard cost, and direct cost systems. (A)

## 153 FEDERAL TAX ACCOUNTING

3 units, 3 lecture hours, (Formerly Accounting 53)
PREREQUISITE: Accounting 4A or BT 31. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Individual Income Taxes: gross income, exclusions, deductions, losses, and property transactions. (A)

154 AUDITING
3 units, 3 lecture hours, (Formerly Accounting 54)
PREREQUSSITE: Accounting 4A. ADVISORY: Eligibility for English
125 and 126 or English 153 or ESL 67 and 68 recommended.
Objectives and techniques in verification of business financial statement; duties, responsibilities, and professional ethics of the auditor; auditors report; analysis of internal control. (A)

## 204A SURVEY OF FINANCIAL ACCOUNTING

1 unit, 1 lecture hour, 3 lab hours, ( 9 weeks)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Accounting 71 recommended.

Setting up and paying employees; time tracking with timesheets; W-2s, 1099s, 940s and 941s; setting up and managing inventory; and creating graphs using QuickBooks.

## 260 ACCOUNTING SKILLS LAB

1 unit, 3 lab hours, (Repeats = 3), (Formerly
Accounting 60)
COREQUISITE: Accounting 4A or 4B.
Supervised application of accounting principles and concepts. Students will reinforce accounting concepts learned in the classroom and develop problem-solving abilities. Final grade will be based on hours worked in lab.

## 271 ACCOUNTING USING QUICKBOOKS—BEGINNING

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (Formerly Accounting 71)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and microcomputer experience recommended.

Setting up companies, working with lists, performing file operations, entering and paying bills and invoicing and receiving payments using QuickBooks.

## 272 ACCOUNTING USING QUICKBOOKS—INTERMEDIATE

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks),
(Formerly Accounting 72)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Accounting 71 recommended.

Setting up and paying employees; time tracking with timesheets; W-2s, 1099s, 940 s and 941s; setting up and managing inventory; and creating graphs using QuickBooks.

## ADMINISTRATION OF JUSTICE

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## ADMINISTRATION OF JUSTICE (AJ)

 POLICE ACADEMY
## 200 Interview and interrogation techniques

.5-1 unit, 17-25.5 lecture hours, (1 week), (Credit/
No Credit), (Repeats = 3), (Formerly Administration of Justice 100)
PREREQUISITE: Administration of Justice 270 or sworn peace officer or reserve officer.

Designed to assist the patrol officer in the investigation of crimes that have witnesses and/or suspects an preparing the best possible reports to prosecute the case. Based on behavioral analysis, definitions, preparation factors, observation skills, application of techniques, legal aspects, lineups and showups, and trial problems. Materials fee will be charged.

## 201 EXPLOSIVES RECOGNITION AND RESPONSE

1 unit, 26 lecture hours, 16 lab hours, (1 week), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 101)
PREREQUISITE: Sworn peace officers or reserve officers with a letter of recommendation from their departments, or Administration of Justice 270 and those who have registered under United States Code Title 26 Section 5841 for the possession of explosive devices.

Familiarization of explosives including military, civilian, improvised, and booby traps. Materials fee will be charged.

202 ETHICAL DILEMMAS IN PUBLIC SAFETY AGENCIES
.2 units, 8.5 lecture hours, (1 week), (Credit/No Credit), (Repeats $=3$ ), (Formerly Administration of Justice 102)
PREREQUISITE: None.
Designed to foster discussion about individual values, ethics, integrity, principles and standards as they relate to law enforcement and professionalism, and how they relate to daily decision-making in the workplace. Materials fee will be charged.

## 203 CUSTOMER SERVICE TRAINING FOR LAW ENFORCEMENT

. 2 units, 8.5 lecture hours, (1 week), (Credit/No
Credit), (Repeats $=3$ ), (Formerly Administration of Justice 103)
PREREQUISITE: Current employment by a public safety agency or Administration of Justice 270.

Designed to provide the necessary skills for law enforcement personnel with "contact" responsibilities to identify who the customer is, determine the needs of the customer, and effectively deal with customer issues. A materials fee will be charged.

## 204 INSTRUCTOR TRAINING

.5-1 unit, 15-23.5 lecture hours, 2 lab hours, (1
week), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 104)
PREREQUISITE: None.
Presentation skills and techniques that can be applied in any presentation environment. An overview of learning activities, facilitation of group activities, public speaking, and resources available to enhance presentations. Also, designed to increase the skills of Basic Academy Instructors in delivering POST Learning Domain curricula. Materials fee will be charged.

## 205 SEARCH WARRANT EXECUTION

. 2 units, 6.5 lecture hours, 2 lab hours, (1 week),
(Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 105)
PREREQUISITE: Sworn peace officer or Administration of Justice 270.

Appropriate building entry including action planning, search techniques, safety considerations, and coordinated execution of the plan. Materials fee will be charged.

206 DRUG INFLUENCE UPDATE
. 5 unit, 17 lecture hours, (1 week), (Credit/No
Credit), (Repeats $=3$ ), (Formerly Administration of
Justice 106)
PREREQUISITE: Sworn peace officer or Administration of Justice 270.

Designed to update skills for law enforcement officers to recognize, arrest, and properly testify against persons under the influence of heroin, cocaine, PCP, and other controlled substances. Materials fee will be charged.

## 207 SURVIVAL SPANISH FOR LAW ENFORCEMENT

. 5 unit, 25.5 lecture hours, (12 weeks), (Credit/No
Credit), (Repeats $=3$ ), (Formerly Administration of
Justice 107)
PREREQUISITE: None.
Spanish language skills for emergency situations where immediate compliance to verbal commands is necessary and to obtain information for reports.

## 208 TACTICAL COMMUNICATION

. 5 unit, 25.5 lecture hours, (1 week), (Credit/No
Credit), (Repeats = 3), (Formerly Administration of
Justice 108)
PREREQUISITE: None.
Designed specifically for the Law Enforcement professional. Development, practice and delivery of communication skills required in today's workplace. A materials fee will be charged.

209 TACTICAL CARBINE INSTRUCTOR
1 unit, 4 lecture hours, 29.5 lab hours, (1 week), (Credit/No Credit), (Unlimited Repeats), (Formerly Administration of Justice 109)
PREREQUISITE: Sworn peace officer or Administration of Justice 270.

Doctrine and techniques central to the . 223 caliber law enforcement tactical carbine (AR-15, Mini-14, AUG, etc.). Development of training skills for the individual to train his or her officers using the weapon system.

## 210 FIREARMS/TACTICAL HANDGUN, ADVANCED

1 unit, 4 lecture hours, 21.5 lab hours, (1 week), (Credit/No Credit), (Unlimited Repeats), (Formerly Administration of Justice 110)
PREREQUISITE: Sworn peace officer, probation officer, correctional officer, reserve officer or Administration of Justice 270.

Supplemental handgun training with advanced gunfighting techniques form the Modern Techniques of the Pistol for line officers. Enhancement of primary defense firearm skills.

## 211 EXPANDABLE STRAIGHT BATON INSTRUCTOR

. 5 unit, 6 lecture hours, 11 lab hours, (1 week), (Credit/No Credit), (Repeats = 3)
PREREQUISITE: Sworn peace officer or reserve officer or Administration of Justice 270 or Administration of Justice 272.

Designed to train officers to instruct department personnel in the use of the expandable and straight baton.

212 TACTICAL SHOTGUN INSTRUCTOR
1 unit, 8 lecture hours, 25.5 lab hours, (1 week), (Credit/No Credit), (Unlimited Repeats), (Formerly Administration of Justice 112)
PREREQUISITE: Sworn peace officer or Administration of Justice 270.

Training of officers in modern techniques of the tactical shotgun

213 FIREARMS/SUBMACHINE GUN INSTRUCTOR
1 unit, 4 lecture hours, 29.5 lab hours, (1 week), (Credit/No Credit), (Unlimited Repeats), (Formerly Administration of Justice 113)
PREREQUUSITE: Administration of Justice 270 with a letter from the California Department of Justice authorizing the use of automatic weaponry or sworn peace officer, correctional officer or reserve officer.

Techniques and skills necessary to train other officers with tactical firearms and submachine gun.

## 214 SWAT TRAINING

1 unit, 10.6 lab hours, ( 5 weeks), (Credit/No Credit), (Unlimited Repeats), (Formerly Administration of Justice 114)
PREREQUISITE: Sworn peace officer currently assigned to a SWAT unit or Administration of Justice 270 with a letter from the California Department of Justice authorizing the use of automatic weaponry.

SWAT training designed for individuals currently assigned to a SWAT Unit.

## 215 K-9 HANDLER UPDATE COURSE

. 5 unit, 8 lecture hours, 17.5 lab hours, (1 week), (Credit/No Credit), (Unlimited Repeats), (Formerly Administration of Justice 115)
PREREQUISITE: Current K-9 handler with law enforcement agency or Administration of Justice 270 with the possession of a dog which is of the breed used by law enforcement agencies.

Competency-based determination of areas most and least skilled, and use of drills to improve those skills which are weakest.

## 216 CRIMINAL INVESTIGATION

1 unit, 42 lecture hours, (1 week), (Credit/No
Credit), (Repeats = 1), (Formerly Administration of Justice 116)
PREREQUISITE: Full-time sworn officer or Administration of Justice 270.

Basic techniques in investigation for novice investigators and generalist patrol officers with investigative responsibilities.

## 217 BACKGROUND INVESTIGATION

1 unit, 42 lecture hours, (1 week), (Credit/No Credit), (Unlimited Repeats), (Formerly
Administration of Justice 117)
PREREQUISITE: Open to all California law enforcement agencies including police, sheriff, corrections and probation or Administration of Justice 270.

Basic techniques and procedures for background investigators.

## 218 INTERVIEW AND INTERROGATION ADVANCED

. 5 unit, 17 lecture hours, (1 week), (Credit/No
Credit), (Unlimited Repeats), (Formerly
Administration of Justice 118)
PREREQUISITE: Administration of Justice 270 or sworn peace officer.

Advanced interview and testimonial evidence gathering techniques.

## 219 REQUALIFICATION—BASIC COURSE

3 units, 10.9 lecture hours, 4.3 lab hours, (10
weeks), (Credit/No Credit), (Unlimited Repeats),
(Formerly Administration of Justice 119)
PREREQUISITE: California POST Basic Certificate or, for those from out of state, a letter of recommendation from POST. No criminal record that disqualifies an individual under 12021 California Penal Code.

Updated information in the use of force, laws of arrest, search and seizure, criminal law, etc.

## 260 POLICE CADET ADMINISTRATION

3 units, 1 lecture hour, 6 lab hours by arrangement, (Repeats $=1$ ), (Formerly Administration of Justice 60)

PREREQUISITE: None.
Project assignments on the freshman level. Students are members of the Fresno City College police cadets and perform duties of maintenance and operation of the police department headquarters.

## 261 FRESNO CITY COLLEGE POLICE CADET FIELD

3 units, 1 lecture hour, 6 lab hours by arrangement,
(Repeats =1), (Formerly Administration of Justice 61)

Project and field assignment for students who are organized into a police agency situation. Basic police equipment and uniforms will be utilized as a practical training medium.

## 270 BASIC POLICE ACADEMY

30 units, 15.8-24.9 lecture hours, 12.6-19.2 lab
hours, (25-40 weeks), (Credit/No Credit), (Repeats = 3), (Formerly Administration of Justice 70)

PREREQUISITE: Successful completion of the POST Standardized Reading Comprehension and Writing Skills Test and the POST Physical Agility Test. Valid California Drivers License. Submitfingerprint cards to the Department of Justice for background clearance. Physical Exam, including an electrocardiogram (EKG) printout. OR, be sponsored by a law enforcement agency.

Satisfies the requirements of the California Commission of Peace Officer Standards and Training (POST) for Basic Police Academy train-
ing mandatory for every full-time peace officer under Penal Code, Section 830.1. Material and range fee will be charged.

271 BASIC RESERVE POLICE ACADEMY, LEVEL III, PART 1, P.C. 832

3 units, 2.75 lecture hours, 1 lab hour, (Repeats = 3), (Formerly Administration of Justice 71)

PREREQUISITE: Demonstration of physical ability to use a firearm with safety. Must obtain a Department of Justice clearance for firearms possession prior to the firearms portion of the class.

Basics in arrest and control techniques and the use of firearms to fulfill the requirements of Section 832 (Level III) of the California Penal Code. Materials and range fee will be charged.

## 272 BASIC RESERVE POLICE ACADEMY LEVEL 3, PART 2

3 units, 5 lecture hours, 1.75 lab hours, (Repeats = 3)

PREREQUISITE: Administration of Justice 271.
Satisfies mandatory requirements for Level 3 Reserve Police Officer. May not be taken concurrently with AJ 271, PC 832.

## 273 BASIC RESERVE POLICE ACADEMY LEVEL 2

8 units, 12 lecture hours, 6.5 lab hours, (Repeats $=$ 3)

PREREQUISITE: Administration of Justice 271 and Administration of Justice 272.

Satisfies mandatory requirements for Level 2 Reserve Police Officer.

## 274 BASIC RESERVE POLICE ACADEMY LEVEL 1

16 units, 17 lecture hours, 8 lab hours, ( 28 weeks), (Repeats = 3)
PREREQUISITE: Administration of Justice 271, Administration of Justice 272 and Administration of Justice 273.

Satisfies mandatory requirements for Level 1 Reserve Police Officer.

## 275 ADVANCED OFFICER ACADEMY

.5-1 unit, 25.5-42 lecture hours, (1 week), (Credit/
No Credit), (Repeats = 3), (Formerly Administration
of Justice 72 and Administration of Justice 75)
PREREQUSITE: Administration of Justice 270 or sworn full-time peace officer.

Satisfies the requirements of the California Commission on Peace Officer Standards and Training (POST) for advanced officer training. Training in leadership, personnel motivation, law, promotional preparation; duties of a law enforcement officer. Materials and range fee will be charged.

## 276 BASIC SUPERVISORS

2 units, 38 lecture hours, 4 lab hours, (2 weeks), (Repeats $=3$ ), (Formerly Administration of Justice 73 and Administration of Justice 76)
PREREQUISITE: Substantiated service in a supervisory capacity within a criminal justice agency, or expected service within a one-year period, or authorization by the agency head.

POST and STC training curriculum for the newly promoted law enforcement or correctional supervisor. Role identification, leadership styles, values, ethics and principles, assertive leadership, etc. Materials fee will be charged.

## 277 COMMUNITY SERVICE OFFICER

4-6 units, 27.3-42.5 lecture hours, ( 6 weeks),
(Repeats $=3$ ), (Formerly Administration of Justice 85 and Administration of Justice 77)
PREREQUISITE: Administration of Justice 271 or employment as full-time community service officer.

Training for civilian non-sworn personnel responsible for the investigation and reporting on non-hazardous crime. Materials fee will be charged.

## 278 PUBLIC SAFETY DISPATCHER

3 units, 40.7 lecture hours, 1.3 lab hours, ( 3 weeks), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 89 and Administration of Justice 78)
PREREQUSITE: None.
Knowledge, skills, and abilities to perform the tasks and duties required by a police dispatcher to provide quality service to the public as defined in the California Commission on Peace Officer Standards and Training (POST) procedure D-1-7. Materials fee will be charged.

## 279 CITIZENS' POLICE ACADEMY

1-2 units, 2.8-4.2 lecture hours, (15 weeks), (Credit/ No Credit), (Repeats = 3), (Formerly Administration of Justice 79)
PREREQUISITE: None.
To educate and inform citizens regarding the function and duties of law enforcement personnel. Materials fee will be charged.

280 ADULT CORRECTIONAL OFFICER CORE
4-6 units, 26.3-42 lecture hours, ( 5 weeks), (Repeats
$=3$ ), (Formerly Administration of Justice 74 and
Administration of Justice 80)
PREREQUSITE: None.
Satisfies the requirements for Standards and Training for Corrections (STC), basic correctional academy training. Materials fee will be charged.

## 281 ADVANCED CORRECTIONAL OFFICER ACADEMY

.5-1 unit, 18-42 lecture hours, (1 week), (Credit/No Credit), (Repeats $=3$ ), (Formerly Administration of Justice 75 and Administration of Justice 81)
PREREQUUSITE: Administration of Justice 270 or Administration of Justice 280 or be employed and/or affiliated with a criminal justice agency with the experience equivalent to a Basic Police or Basic Correctional Academy.

Satisfies the requirement of Standard and Training for Corrections (STC). Advanced concepts and training in leadership, personnel motivation, law, promotional preparation, and information pertaining to duties of a correctional officer. Materials and range fee will be charged.

## 282 PC 832 \& EXPANDABLE BATON (INTENSIVE FORMAT)

1.5 units, 27 lecture hours, 10.8 lab hours, (2
weeks), (Credit/No Credit), (Repeats $=3$ )
PREREQUISITE: Demonstration of physical ability to use a firearm safely. Must obtain a Department of Justice Clearance for firearms possession prior to the firearms portion of the class.

Basics in arrest and control techniques and the use of firearms to fulfill the requirements of Section 832 of the California Penal Code. Materials and range fee will be charged.

285 PROBATION CORE COURSE
3-4 units, 33.4-4.7 lecture hours, 2 lab hours, (5 weeks), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 85)
PREREQUISITE: None.
Knowledge and skills essential for newly hired probation officers. Materials fee will be charged.

## 286 JUVENILE CORRECTIONAL OFFICER CORE

2-3 units, 27.4-32.6 lecture hours, 3.1 lab hours, (4 weeks), (Credit/No Credit), (Repeats = 3), (Formerly Administration of Justice 86)
PREREQUISITE: Employment as a correctional officer.
Knowledge and skills essential for newly hired Juvenile Counselors to meet maximum performance standards and to obtain maximum benefits from subsequent on-the-job training. Meets certification requirements for California Standards and Training for Corrections. Materials fee will be charged.

## 287 FIELD TACTICS FOR PROBATION OFFICERS

1 unit, 24 lecture hours, 18 lab hours, (1 week), (Credit/No Credit), (Unlimited Repeats), (Formerly
Administration of Justice 87)
PREREQUISITE: Administration of Justice 271, 280 or 285. Presently employed as a Probation Officer, Correctional Officer or a position requiring PC 832 authority.

Issues of field contacts and tactics for the Field Probation Officer.

## 290 FIREARMS INSTRUCTORS COURSE

1 unit, 31 lecture hours, 11 lab hours, (1 week), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 90)
PREREQUISITE: Administration of Justice 270 or currently serving as a full-time peace officer or a level 1 or level 2 reserve peace officer. Apre-qualification test with a passing score of $80 \%$ prior to starting the class is mandatory.

Designed to prepare the student with the fundamentals of teaching law enforcement firearms techniques to others and to create and administer a safe and quality Firearms Training Program. Various shooting styles and updated instruction on the most effective contemporary techniques used in law enforcement today. How to diagnose shooting problems through target analysis, and how to properly correct the problems. A range fee will be charged based on the cost of targets, range time, and handouts.

## 291 FIELD TRAINING OFFICER

1 unit, 42 lecture hours, (1 week), (Repeats = 3),
(Formerly Administration of Justice 91)
PREREQUISITE: Public safety employee anticipating an assignment to a field training position or Administration of Justice 270.

Training of experienced officers so they can provide field training to new recruits. Evaluation, motivation, and discipline; issues of supervision, value and ethics, adult learning processes, counseling, and role of the training officer. A materials fee will be charged.

## 292 PR-24 BATON INSTRUCTOR COURSE

1 unit, 12 lecture hours, 30 lab hours, ( 1 week), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 88 and Administration of Justice 92)
PREREQUISITE: Administration of Justice 270 or Peace Officer or Reserve Officer.

Designed to teach the instructor the development and the teaching methods of psychomotor skills that pertain to the side handle baton. Materials fee will be charged.

293 DRUG INFLUENCE - H\&S 11550
.5-1 unit, 25.5-33.5 lecture hours, (1 week), (Credit/
No Credit), (Repeats = 3), (Formerly Administration
of Justice 84 and Administration of Justice 93)
PREREQUISITE: Sworn full-time peace officer or all levels of police reserves or Administration of Justice 270.

An elementary introduction to controlled substances and how they affect the human body both psychologically and physiologically. Completion of this course will enable student to recognize, photograph, and document H\& S11550 suspects and prepare the officer for court. A materials fee will be charged.

## 294 OFFICER SAFETY

.5-1 unit, 9.5-18 lecture hours, 16-24 lab hours, (1 week), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 83 and Administration of Justice 94)
PREREQUISITE: Administration of Justice 270 or sworn full-time peace officer.

Arrest and control, use of weapons, and officer safety procedures. Materials fee and a range fee will be charged.

## 295 TRAFFIC ACCIDENT INVESTIGATION

1 unit, 42 lecture hours, (1 week), (Credit/No
Credit), (Repeats $=3$ ), (Formerly Administration of
Justice 81 and Administration of Justice 95)
PREREQUISITE: Administration of Justice 270 or sworn full-time peace officer.

Training in proper traffic accident investigations procedures and proper recording format as prescribed by the Collision Investigation Manual (HPN110.5) for statewide use. Satisfies requirements of Police Officer Standards and Training (POST) and California Vehicle Code Section 40600a. Materials fee will be charged.

## 296 HOMICIDE INVESTIGATION

1-2 units, 42-84 lecture hours, ( 2 weeks), (Credit/No
Credit), (Repeats $=3$ ), (Formerly Administration of
Justice 82 and Administration of Justice 96)
PREREQUISITE: Administration of Justice 270 or sworn full-time peace officer.

An overview of established current methods utilized in homicide investigation. Materials fee will be charged.

## 297 BATON AND DEFENSE TACTICS SEMINAR

. 2 units, 6.5 lecture hours, 2 lab hours, (1 week), (Credit/No Credit), (Repeats = 3), (Formerly
Administration of Justice 76 and Administration of Justice 97)
PREREQUISITE: None.
Use of baton and technique for various holds through demonstration and practice. Materials fee will be charged.

## 298 SEXUAL ASSAULT INVESTIGATION

1-2 units, 25.5-42 lecture hours, (1 week), (Credit/ No Credit), (Repeats = 3), (Formerly Administration of Justice 98)
PREREQUISITE: Administration of Justice 270 or sworn peace officer.

Statutes related to sexual assaults and how violations of these laws must be proven in court. Materials fee will be charged.

## 299 BASIC BICYCLE PATROL

1-2 units, 7.5-14 lecture hours, 18-28 lab hours, (1
week), (Credit/No Credit), (Repeats $=3$ ), (Formerly
Administration of Justice 99)
PREREQUISITE: Administration of Justice 270 or sworn peace officer, or reserve officer. Be physically fit and provide the following suitable equipment: working bicycle, gloves, protective eyewear, bicycle helmet, gun-belt, uniform shirt, and bicycle shorts.

Designed to familiarize the bike officer in the daily operation of the bicycle in a patrol function and to provide the student with skills and techniques used in bicycle patrol. Materials fee will be charged.

## AEROSPACE STUDIES (AEROST)

1A USAF FOUNDATIONS
1 unit, 1 lecture hour
PREREQUSITE: None.
The Air Force in the contemporary world. Focus on the organizational structure and missions of Air Force organizations; officership and professionalism; and introduction to communication skills. (A, CSU)

1B USAF FOUNDATIONS
1 unit, 1 lecture hour
PREREQUISITE: None.
The Air Force in the contemporary world. Focus on the organizational structure and missions of Air Force organizations; officership and professionalism; and introduction to communication skills. (A, CSU)

2A THE EVOLUTION OF USAF AIR AND SPACE
1 unit, 1 lecture hour
PREREQUISITE: None.
Factors contributing to the development of air power from its earliest beginnings through the gulf war; the evolution of air power concepts and doctrine; and an assessment of communication skills. (A, CSU)

2B THE EVOLUTION OF USAF AIR AND SPACE
1 unit, 1 lecture hour
PREREQUISITE: None.
Factors contributing to the development of air power from its earliest beginnings through the gulf war; the evolution of air power concepts and doctrine; and an assessment of communication skills. (A, CSU)

## 3 LEADERSHIP LABORATORY

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: None.
A practicum of Air Force customs and courtesies, issuing military commands, instructing, directing and evaluating the preceding skills, studying the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. (A, CSU, UC)

## AFRICAN-AMERICAN STUDIES (AFRAM) <br> FORMERLY CULTURAL STUDIES/BLACK STUDIES

## 1 AFRICAN-AMERICAN CULTURE

3 units, 3 lecture hours, (Formerly Cultural Studies 1)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The African-American in American society: an interdisciplinary approach using anthropology, history, sociology, literature, art, and music. (A, CSU-GE, UC, I)

## 2 CULTURAL ADAPTATION OF THE AFRICAN-AMERICAN

3 units, 3 lecture hours
(Formerly Cultural Studies 20)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

TheAfrican-American cultural system: problems and conflicts with the dominant culture. (A, CSU, UC)

## 3 AFRICAN-AMERICAN ART

3 units, 3 lecture hours, (Formerly Cultural Studies 3)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The creative products of Black people in Africa and America: painting, architecture, sculpture, drawing and printing. (A, CSU-GE, UC, I)

## 4 AFRICAN CIVILIZATION

3 units, 3 lecture hours, (Formerly Cultural Studies 4)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Earliest times until the colonial period. (A, CSU-GE, UC, I)

## 5 THE AFRICAN IN THE NEW WORLD

3 units, 3 lecture hours, (Formerly Cultural Studies 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History and contributions of African people in South America, the Caribbean, and the United States. (A, CSU, UC)

## 6 AFRICAN CULTURES AND LANGUAGES

3 units, 3 lecture hours, (Formerly Cultural Studies 6)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

African language structures: ethnological and historical implications. (A, CSU, UC)

## 8 AFRICAN-AMERICAN CREATIVE WORKSHOP

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ),
(Formerly Cultural Studies 8)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Acreative multi-discipline workshop based on the history and culture of the African-American. (A, CSU-GE, UC)

## 13 AFRICAN-AMERICAN MUSIC FROM PRE-SLAVERY

 TIMES TO 19403 units, 3 lecture hours, (Formerly African-American Studies 7)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The evolution of African-American music from African rhythms to spirituals, gospel music, blues, ragtime, jazz, and the big bands of the 1940s. (A, CSU-GE, UC, I)

## 15 AFRICAN-AMERICAN MUSIC FROM 1940 TO THE

 PRESENT3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

African-American music from 1940 to the present. (A, CSU-GE, UC, I)

## 17 AFRICAN-AMERICAN LITERATURE

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Reading critical works of African and African-American artists and understanding their cultural values and themes as expressed in essays, novels, poetry, and plays. (A, CSU, UC, I)

## 21 BEGINNING SWAHILI

4 units, 3 lecture hours, 2 lab hours, (See also
Swahili 1), (Formerly African-American Studies 21A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester beginning Swahili: listening, speaking, grammar, writing, reading, and vocabulary. Designed for students with no knowledge of Swahili. (A, CSU-GE, UC)

## 22 HIGH-BEGINNING SWAHILI

4 units, 3 lecture hours, 2 lab hours, (See also
Swahili 2)
PREREQUISITE: African-American Studies 21/Swahili 1 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second Semester Swahili: listening, speaking, grammar, reading, writing, comprehension, and vocabulary. (A, CSU-GE, UC)

## 36 CONTEMPORARY AFRICA

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An analysis of Africa's struggle for political independence, economic development, cultural identity, and the democratic process. (A, CSU, UC)

## 41 THE AFRICAN-AMERICAN WOMAN

3 units, 3 lecture hours, (See also Women's Studies
41), (Formerly Cultural Studies 41)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Asurvey of the historical and contemporary contributions and issues of African-American women in America. (A, CSU, UC)

## 42 AFRICAN DANCE AND PERCUSSION

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3),
(See also Dance 42), (Formerly Cultural Studies 42)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The theory and practice of rhythmic music, percussion, and dance as an exploration of traditional African culture with special emphasis on historical antecedents and contemporary trends. (A, CSU-GE, UC)

49 BLACK GOSPEL CHOIR
2-3 units: 3 units, 2 lecture hours, 4 lab hours; 2 units, 1 lecture hour, 3 lab hours, (Repeats = 3),
(Formerly Cultural Studies 9ABCD)
ADVISORY: Previous or concurrent enrollment in Music 25A recommended.

African-American experience through musical theory and performance: gospel and spiritual. (A, CSU-GE, UC)

## AIR CONDITIONING (AC)

19 OCCUPATIONAL WORK EXPERIENCE
1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to air conditioning. Learning objectives established specific to air conditioning. Sev-enty-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 50 PRINCIPLES OF MECHANICAL REFRIGERATION

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Refrigerant system components and principles of operation. Refrigerants, temperature pressure relationships, sensible and latent heat transfer in the refrigeration process. Analysis of system operation as a diagnostic tool. (A, CSU)

## 51 ELECTRICAL SYSTEMS

6 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 or Applied Technology 130 recommended.

Theory and application of electrical principles. Single and three phase power, transformers, wiring diagrams, control logic, test instruments, single phase motors and controls. Brazing, evacuation, charging, recovery, wiring and testing of refrigerant systems. (A, CSU)

## 52 HEATING SYSTEMS

6 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVISORY: Air Conditioning 50, 51, 53 and eligibility for English
125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Theory of operation, diagnosis, service and repair of natural and
induced draft heaters, condensing furnaces, resistance heaters and heat pumps. Electromechanical and solid state controls, ignition systems, flame sensing, gas controls and venting. (A, CSU)

## 53 MEASUREMENTS AND DIAGNOSIS

6 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVISORY: Air Conditioning 50 or concurrent enrollment, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Diagnosis of the refrigerant systems through the analysis of pressures, temperatures, and current draw. Air flow measurement, analysis of heat content, and test procedures. Use of the volt, ohm and amp meters, manifold gauge, incline manometer, magnehelic gage, pitot tubes, digital/sling psychrometer and the psychrometric chart as diagnostic tools. (A, CSU)

## 54 COMMERCIAL SYSTEMS

6 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVISORY: Air Conditioning 50, 51, 53 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Operation and diagnosis of three phase motors, solid state and electromechanical controls and refrigerant flow controls. Sizing of related electrical and gas distribution systems. (A, CSU)

## 56 DUCT SYSTEMS

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVISORY: Air Conditioning 50 or concurrent enrollment, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Design, layout and installation of duct systems. Sheet metal fabrication, soldering, riveting, spot welding and seaming. Estimating and bidding projects. (A, CSU)

## 60A FUNDAMENTALS OF REFRIGERATION

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 or Applied Technology 130 recommended.

The physics of mechanical refrigeration, temperature pressure relationships, system components and principles of operation. (A, CSU)

## 260B ELECTRICITY FOR AIR CONDITIONING

3 units, 3 lecture hours, (Repeats = 3), (Formerly Air Conditioning 60B)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 or Applied Technology 130 recommended.

Theory and application of electrical principles. Induction motors, wiring diagrams, control logic and test instruments.

## 260C RESIDENTIAL HEATING

3 units, 3 lecture hours, (Repeats = 3), (Formerly Air Conditioning 60C)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Principles of combustion, furnace controls and system diagnosis. Properties of air, measurements and analysis.

260D TROUBLESHOOTING PROCEDURES
3 units, 2 lecture hours, 2 lab hours, (Repeats = 3), (Formerly Air Conditioning 60D)
ADVISORY: Air Conditioning 60A, 260B, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 or equivalent recommended.

Troubleshooting and analysis of air, electrical and refrigeration systems using computer simulations. Analysis and layout of residential duct systems.

## AMERICAN INDIAN STUDIES (AMIND)

 FORMERLY NATIVE AMERICAN STUDIES
## 31 AMERICAN INDIAN CULTURE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The Native Nations of North America (American Indians) from antiquity to the present; regional survival strategies and expressive arts; effects of invasion and colonization with an emphasis on self-preser vation and continuing sovereignty. (A, CSU-GE, UC I)

## 32 AMERICAN INDIAN HISTORY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The history of the American Indian nations from antiquity to the mid-20th century, with an emphasis on pre-Columbian life, the European invasion nations, and federal-Indian relations in the United States. (A, CSU, UC)

## 33 INDIANS OF THE SAN JOAQUIN VALLEY AND ADJACENT

 FOOTHILLS AREAS2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History, social organization, culture, and language of the Miwok, Mono, Tubatulabal, and Yokuts of Central California with an emphasis on the Indian tribes: Choinumni, Chukchansi, Wukchumni, Waksache, Tachi, Mono, Miwok and others. (A, CSU)

## 34 THE AMERICAN INDIAN IN CONTEMPORARY SOCIETY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

American Indians in North America after the Second World War; emphasis on current events and legislation; issues involving the inherent sovereignty of American Indian nations and their place in modern global society. (A, CSU-GE, UC, I)

## 35 AMERICAN INDIAN ART

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Cultural perspective on the antiquity and continuity of American Indian arts, focusing on their ideography and iconography. Emphasis on North, Central and South America. (A, CSU-GE, UC, I)

## AMERICAN SIGN LANGUAGE see foreign languages

## AMERICAN STUDIES (AMST)

## 10 AMERICAN PLURALISM: A SEARCH FOR COMMON

GROUND IN A MULTICULTURAL SOCIETY
3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Multidisciplinary examination of identity and ethnicity in a multicultural society with special emphasis on what forces unite as well as divide this country. (A, CSU-GE, UC, I)

## ANTHROPOLOGY (ANTHRO)

## 1 PHYSICAL ANTHROPOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The evolutionary biology of humankind. The history of evolutionary thought; human genetics; comparison of humansto non-human life forms, especially the primates; the fossil record, the role of culture in human evolution; and the concept of race. (CANANTH2) (A, CSU, UC)

## 2 CULTURAL ANTHROPOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Principles, methods, and concepts of cultural anthropology. The relationship between culture, society, and the individual. A cross-cultural, integrated analysis of human marriage and family, child rearing, personality development, kinship, social institutions, ideology and religion, politics and social control, economics and ecological adaption, language, artistic expression, and cultural change. (CAN ANTH 4) (A, CSU-GE, UC, I)

## 2H HONORS CULTURAL ANTHROPOLOGY

3 units, 3 lecture hours, (Formerly Honors 2A)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Principles, methods, and concepts of cultural anthropology. The relationship between culture, society, and the individual. A cross-cultural, integrated analysis of human marriage and family, child rearing, personality development, kinship, social institutions, ideology and religion, politics and social control, economics and ecological adaption, language, artistic expression and cultural change. In addition, the Honors course takes a greater cross-disciplinary perspective, places greater emphasis on the use of anthropology on the understanding of the modern world, and more critically evaluates the methods and theory of anthropology. (CAN ANTH 4) (A, CSU-GE, UC, I)

## 3 INTRODUCTION TO ARCHAEOLOGY AND PREHISTORY

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of prehistoric man and the emergence and growth of human culture. (CAN ANTH 6) (A, CSU-GE, UC, I)

## 4 FIELD ARCHAEOLOGY

2 units, 1 lecture hour, 8 field lab hours, (Saturday), ( 9 weeks)
COREQUISITE: Anthropology 1, 2, or 3. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Site excavation, treatment of artifacts, analysis of data. (A, CSU, UC)

## 5 FIELD ARCHAEOLOGY

2 units, 1 lecture hour, 8 field lab hours, ( 9 weeks)
PREREQUISITE: Anthropology 4. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Field excavation, treatment of artifacts, analysis of data, site mapping, and site publication. (A, CSU, UC)

## 14 FOLKLORE

3 units, 3 lecture hours, (See also English 14)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Cultural functions of traditional narratives, beliefs, and activities in primitive and developed societies; collection techniques and methods of analysis. (A, CSU, UC)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on thejob, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to anthropology. Learning objectives established specific to anthropology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 CALIFORNIA INDIANS

3 units, 3 lecture hours
COREQUISITE: Anthropology 2 or 3. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The archaeology, linguistics, ethnohistory, and cultures of the Indians of California. Emphasis on the peoples of California prior to the influence of peoples of European background. (A, CSU, UC)

## 27 ARCHAEOLOGICAL RECONNAISSANCE

1 unit, 1 lecture hour, 4 field lab hours, ( 6 weeks),
(Repeats = 2)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Locating, assessing, and recording archaeological sites. Includes technical report writing; environmental, ethnological, and archaeological research; and compass use and topographical map reading. (A, CSU)

## 28 ANCIENT MEXICO: AN INTRODUCTION TO MESO-

 AMERICAN CIVILIZATIONS AND CULTURES3 units, 3 lecture hours, (See also Chicano-Latino Studies 28)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Asurvey of history, geography, socio-political structures, religious systems, and cultural achievements of Mesoamerican civilizations such as the Olmec, Zapotec, Teotihuacan, Mayan, Toltec, and Aztec/Mexican. (A, CSU, UC)

## APPLIED TECHNOLOGY (AT)

10 TECHNICAL COMPUTER APPLICATIONS
2 units, 1 lecture hours, 2 lab hours, (Formerly
Industrial Education 23)
PREREQUISITE: None.
An introduction to computers, their use, and the development of general computer skills for technical programs. (A, CSU)

## 11 BASIC ELECTRICITY

3 units, 3 lecture hours, (Formerly Industrial
Education 11)
PREREQUISITE: None.
Fundamental concepts of electricity and its applications. Lecture/ demonstration. (A, CSU)

## 21 OCCUPATIONAL SAFETY AND HEALTH

2 units, 2 lecture hours, (Formerly Industrial Education 36)
PREREQUISITE: None.
Employer and employee responsibility, federal and state legislation, accident reports, industrial hygiene, personal protective equipment, materials handling and storage, guarding machines and mechanisms, hand and portable power tools, and fire prevention. (A, CSU)

## 31 TECHNICAL REPORT WRITING

3 units, 3 lecture hours, (Formerly Drafting 43)
PREREQUISITE: English 252 or designated score on English placement test.

Content, organization, style, and format. Business correspondence, tables and figures. (A, CSU)

## 40 PREPARING FOR EMPLOYMENT OPPORTUNITIES

3 units, 3 lecture hours, (Formerly Industrial
Education 37)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Preparing resumes, portfolios, and improving employment seeking skills. (A, CSU)

120 INDUSTRIAL SCIENCE
3 units, 3 lecture hours, (Formerly Industrial
Education 51)
PREREQUISITE: None.
Solids, liquids and gases; heat, motion, energy, and basic chemistry; applications to trades. (A)

## 130 INDUSTRIAL MATHEMATICS

3 units, 3 lecture hours, (Formerly Industrial Education 60)
PREREQUISITE: Math 260C or Math 250 or designated math score. ADVISORY: Eligibility for English 125 and 126 English 153 or ESL 67 and 68 recommended

Industrial technology and trade-related math problems. The use of signed numbers, algebraic expressions, exponents, polynomials, factoring, algebraic fractions, graphing, radical expressions, quadratic equations and particular emphasis on practical problems common to technical industrial trades. (A)

## 212 COMPUTER SKILLS LAB

1 unit, 3 lab hours, (Repeats = 3) (Formerly
Industrial Education 50)
PREREQUISITE: None.
Supervised use of computers. Reinforcement of concepts from classroom studies. Problem- solving skills. Grade based on hours worked in lab.

## APPRENTICESHIP TRAINING (APP)

Apprenticeship training courses are designed for those currently employed and indentured in the specific trade.

For specific apprenticeship training program requirements refer to the Associate Degree and Certificate Programs section of this cata$\log$.

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to apprenticeship programs. Learning objectives established specific to apprenticeship programs. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 360 INTRODUCTION TO APPRENTICESHIP TRAINING

1-4 lecture hours, (Formerly Apprenticeship Training 60)

PREREQUUSITE: Enrolled in an approved apprenticeship program as an indentured apprentice.

Industrial math, blueprint reading, measurements, the history and laws of apprenticeship.

## AUTOMOTIVE AND HEAVY-DUTY ELECTRICAL

Courses required for this apprenticeship program are listed on page 86.

## AUTOMOTIVE MECHANICS

Courses required for this apprenticeship program are listed on page 86 .

## BODY AND FENDER

Courses required for this apprenticeship program are listed on page 87.

## DIESEL AND HEAVY-DUTY MECHANICS

Courses required for this apprenticeship program are listed on page 86.

361/3B DIESEL \& HEAVY-DUTY MECHANICAL
4 lecture hours, (Open Entry/Open Exit), (Formerly
Apprenticeship Training 61/63B)
PREREQUSITE: Apprenticeship status.
Diesel engines, safety, fuel and oil systems tools, and lubrication. Diesel drive train components. Heary-duty diesel accessories, and electrical systems.

## ELECTRONICS

Courses required for this apprenticeship program are listed on page 86.

## MACHINE SHOP

Courses required for this apprenticeship program are listed on page 88.

## PARTSCLERK

Courses required for this apprenticeship program are listed on page 88.

## ROOFING

Courses required for this apprenticeship program are listed on page 89.

## 361/6J ROOFING

4 lecture hours, (Open Entry/Open Exit), (Formerly
Apprenticeship Training 61/66J)
PREREQUSITE: Apprenticeship status.

History, materials, tools, and roof preparation. Built-up roofing, dampproofing, waterproofing, composition shingling, and rigid roofing. Blueprint reading and estimating. Characteristics of built-up roofing, insulation, and temperature control. Steep roofing and metal roofing. Reroofing, repairing, plastics, drainage, and estimating.

## STATIONARY ENGINEERS

Courses required for this apprenticeship program are listed on page 89.

## WELDING

Courses required for this apprenticeship program are listed on page 89.

## ARCHITECTURE (ARCH)

10 INTRODUCTION TO DRAWING AND PERSPECTIVE
2 units, 1 lecture hour, 3 lab hours PREREQUSITE: None.
Graphic communication, orthographic, isometric, and perspective drawing. Shade and shadow construction. History and development of perspective during the Renaissance. (A, CSU-GE, UC)

## 11 INTRODUCTION TO ARCHITECTURE AND

ENVIRONMENTAL DESIGN
1 unit, 1 lecture hour
PREREQUISITE: None.
Familiarization with architecture, engineering, city planning, construction and landscape; design process and development as a basis for analysis. (A, CSU-GE, UC)

## 12 ARCHITECTURAL PRACTICE

3 units, 2 lecture hours, 3 lab hours PREREQUSITE: None.
Construction techniques and working drawings; laws and codes affecting buildings; working drawings as communication instruments. (A, CSU)

## 20 BASIC GRAPHICS

2 units, 1 lecture hour, 3 lab hours
PREREQUSITE: Architecture 10 or equivalent.
Drawing as a communication tool in environmental design. Representation of ideas through use of various artistic media. (A, CSU-GE, UC)

## 21 MATERIALS OF CONSTRUCTION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Materials used in construction of buildings, applications and limitations. (A, CSU)

## 22 ARCHITECTURAL PRACTICE

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 12.
Construction techniques and working drawings; laws and codes affecting buildings; working drawings as a communication instrument. (A, CSU)

## 24 ARCHITECTURAL CAD

2 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Architecture 12 and CADD 14.
Specifically designed for architecture, interior design and related fields. Template drawings, layers, dimensioning and plotting standards, architectural scales, detail libraries and the wblock and xref commands. A brief introduction to the Autolisp programming language. (A, CSU)

## 30 ENVIRONMENTAL DESIGN FUNDAMENTALS

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 11.
Visual perception; program development; analytic techniques and problem solving methodologies; behavioral and social implications; projects. (A, CSU-GE, UC)

31 BUILDING CODES
3 units, 3 lecture hours, (Repeats $=3$ ), (See also
BSCA 10), (Formerly Architecture 24)
PREREQUISITE: None.
Uniform FHA, Fresno city and county building ordinances. (A, CSU)

## 32 STRENGTH OF MATERIALS

3 units, 3 lecture hours, (Formerly Architecture 31)
COREQUISITE: Drafting 160.
Physical properties; moment and shear diagrams; axial and eccentric loading; deflection; and sizing of structural members of homogenous and compound materials. (A, CSU)

## 34 ADVANCED ARCHITECTURAL CAD

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 24.
Use of the computer for creation of architectural drawings. Drawing walls and inserting doors and windows, roofs, stairs and railings, annotation and structural grids. Using massing models and brief introduction to 3D. (A, CSU)

## 40 ENVIRONMENTAL DESIGN FUNDAMENTALS

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 30.
Visual perception; program development; analytic techniques and problem solving methodologies; behavioral and social implications; projects. (A, CSU)

## 41A OFFICE PRACTICES

3 units, 3 lecture hours
ADVISORY: Drafting 160 recommended.
Common skills in architectural practice. Contracts and specifications, scheduling, description estimating, and bid practices and procedures. (A, CSU)

## 42 STEEL AND TIMBER STRUCTURES

3 units, 2 lecture hours, 4 lab hours, (Formerly
Architecture 32)
PREREQUISITE: Architecture 22 or CADD 14. COREQUISITE: Architecture 31.

Construction techniques and working drawings; codes, zoning ordinances and engineering practices. (A, CSU)

## 44 ARCHITECTURAL COMPUTER RENDERING

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Architecture 34.
Computer rendering of architectural subjects including 3D modeling, materials and textures, lighting, camera settings and presentation. (A, CSU)

## ARMENIAN

SEE FOREIGN LANGUAGES

## ART (ART)

## 2 ART APPRECIATION

3 units, 3 lecture hours, (Formerly Art 10)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the visual arts through lectures and discussions regarding the elements and principles of visual language, the materials and processes of various media and how these formal properties contribute to the content and meaning of art. Introduction to the historical evolution of the visual arts in Western European culture, as well as the Americas, Asia, Africa, the Pacific Islands and the Islamic world. (A, CSU-GE, UC, I)

## 3 TWO-DIMENSIONAL DESIGN

3 units, 2 lecture hours, 4 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or
ESL 67 and 68 recommended.
Introduction to the elements and principles of two-dimensional design which are common to the visual arts. Afoundation course stressing visual perception and an effective knowledge of the graphic means of expression and communication. Required for art majors. (CANART 14) (A, CSU-GE, UC)

## 4 THREE-DIMENSIONAL DESIGN

3 units, 2 lecture hours, 4 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Exploration and experimentation with the formal elements and principles of visual language in three dimensional design. Required for art majors. (CAN ART 16) (A, CSU-GE, UC)

## 5 ART HISTORY 1

3 units, 3 lecture hours, (Formerly Art 25)
ADVISORY: Eligibility for English 1A recommended.
A survey of the history of the visual arts of Western Civilization from prehistory through the Gothic style. (CAN ART 2) (A, CSU-GE, UC, I)

5H HONORS ART HISTORY 1
3 units, 3 lecture hours, (Formerly Honors 5A)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing, page 272.

A survey of the history of the visual arts of Western Civilization from prehistory through the Gothic style. Honors sections will include special introduction for non-art majors into the characteristics and components of art and a brief introduction into art criticism. (A, CSUGE, UC, I)

## 6 ART HISTORY 2

3 units, 3 lecture hours, (Formerly Art 26)
ADVISORY: Eligibility for English 1A recommended.
A survey of the history of the visual arts of Western Civilization from the beginning of the Renaissance to the present. (CANART 4) (A, CSU-GE, UC, I)

## 6 H HONORS ART HISTORY 2

3 units, 3 lecture hours, (Formerly Honors 6A)
ADVSORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing, page 272.

A survey of the history of the visual arts of Western Civilization
from the beginning of the Renaissance to the present. Honors sections will include special introduction for non-art majors into the characteristics and components of art and a brief introduction into art criticism. (A, CSU-GE, UC, I)

## 7 BEGINNING DRAWING

3 units, 2 lecture hours, 4 lab hours, (Formerly Art
7A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the creation of visual images through drawing. Emphasis on drawing what you see, the content of the visual element, drawing materials/tools, the formal elements of visual language (line, value, texture, shape, volume, color), and composition. (CAN ART 8) (A, CSU-GE, UC)

## 8 BEGINNING LIFE DRAWING AND ANATOMY

3 units, 2 lecture hours, 4 lab hours, (Formerly Art
8A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Human anatomy for artists with the practice of drawing the human figure from the model. (CAN ART 24) (A, CSU, UC)

9 BEGINNING PAINTING: OIL/ACRYLIC
3 units, 2 lecture hours, 4 lab hours, (Formerly Art 14A)
ADVISORY: Art 3 and 7 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the creative act of painting through exploration of representational, abstract, and non-objective forms. Emphasis on oil/acrylic media. (CAN ART 10) (A, CSU-GE, UC)

## 10 BEGINNING CERAMICS

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 11A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to history of humanity through the achievements and cultural diversity recorded in fired clay artifacts. Through construction of ceramic vessels and the study of clay, glaze, and decorative processes, the importance of ceramics as a major medium of expression will be revealed. (CAN ART 6) (A, CSU-GE, UC)

Course Descriptions

## 11 BEGINNING SCULPTURE

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 17A)
PREREQUISITE: None.
Creative self-expression in a variety of sculpture media including but not limited to clay, stone, wood, and plaster. (CANART 12) (A, CSUGE, UC)

## 12 CRAFTS DESIGN

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ ),
(Formerly Art 48)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Exploration of a variety of crafts media in terms of concepts, materials, tools, and processes. (A, CSU-GE)

## 13 BEGINNING WATERCOLOR PAINTING

3 units, 2 lecture hours, 4 lab hours
ADVISORY: Art 7 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the basic methods and materials of watercolor painting through creative, visual problem-solving exercises. (A, CSU, UC)

## 14 BEGINNING PRINTMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=1$ ),
(Formerly Art 23)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the basic aesthetics of relief, intaglio and planograhic processes, including three techniques for each process: linocut, relief blend roll, foam reductive relief, embossing, collagraph, galvanic etching and aquatint, stone lithography, drawn screenprint, and monotype. (CAN ART 20) (A, CSU-GE, UC)

## 15 BEGINNING CERAMIC SCULPTURE

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 12)

PREREQUISITE: None.
Creative self-expression in sculpture using clay and related materials as the media. (A, CSU-GE, UC)

## 16 LIFE PAINTING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=2$ )
ADVISORY: Art 8, Art 9, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The creative act of figurative painting, using the live model as subject matter. (A, CSU, UC)

## 17 INTERMEDIATE DRAWING

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 7B)
PREREQUSITE: Art 7, or demonstration of comparable skill level to be determined by testing and/or portfolio of past drawing work.

Afurther exploration of the creation of drawn images as effective vehicles for visual communication. (A, CSU-GE, UC)

## 18 INTERMEDIATE LIFE DRAWING AND ANATOMY

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 8B)
PREREQUSITE: Art 8 , or demonstration of comparable skill level to be determined by testing and/or portfolio of past life drawing and anatomy work.

Further theory, techniques, and practice of drawing the human figure from models. (A, CSU, UC)

## 19 INTERMEDIATE PAINTING: OIL/ACRYLIC

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 14B)
PREREQUSITE: Art 9, or demonstration of comparable skill level to be determined by testing and/or portfolio of past oil/acrylic painting work.

A further exploration of the creative act of painting using representational, abstract, and non-objective forms. Emphasis on oil/acrylic media. (A, CSU, UC)

## 20 INTERMEDIATE CERAMICS

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ ), (Formerly Art 11B)
PREREQUSITE: Art 10, or demonstration of comparable skill level to be determined by testing and/or portfolio of past ceramic work. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Construction and decorative processes used in ceramics. Throwing on the potters wheel and exploration of clay and glaze chemistry. Historic and contemporary study of ceramics as a major medium of expression. (A, CSU, UC)

## 21 INTERMEDIATE SCULPTURE

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3), (Formerly Art 17B)
PREREQUSITE: Art 11, or demonstration of comparable skill level to be determined by testing and/or portfolio of past sculpture work.

Further self-expression in a variety of sculpture media including but not limited to clay, stone, wood and plaster. (A, CSU, UC)

## 22 TEXTILE DESIGN: HAND PAPERMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3), (Formerly Art 49)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Exploration of the basic processes and materials, both traditional and contemporary, used by the studio artist to make paper by hand. Development of personal visual ideas through fibers and handmade paper. (A, CSU-GE)

## 23 INTERMEDIATE WATERCOLOR PAINTING

3 units, 2 lecture hours, 4 lab hours
PREREQUISITE: Art 13, or demonstration of comparable skill level to be determined by testing and/or portfolio of past watercolor work.

Further methods and materials of watercolor painting through creative, visual problem-solving assignments. (A, CSU, UC)

## 24 INTERMEDIATE PRINTMAKING

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 22)
PREREQUISITE: Art 14, or demonstration of comparable skill level to be determined by testing and/or portfolio of past printmaking work.

Intermediate graphic processes: relief, intaglio, and planographic, including five techniques for each of three processes. (A, CSU, UC)

## 24A INTAGLIO PRINTMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ )
PREREQUISITE: Art 14 or demonstration of comparable skill level to be determined by testing and/or portfolio of past printmaking work.

Intermediate-level intaglio printmaking processes, including experimentation in twelve techniques or combinations of techniques within the intaglio process. (A, CSU)

## 24B LITHOGRAPH PRINTMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3)
PREREQUSITE: Art 14 or demonstration of comparable skill level to be determined by testing and/or portfolio of past printmaking work.

Intermediate-level lithograph printmaking processes, including experimentation in twelve techniques or combinations of techniques within the lithograph process. (A, CSU)

## 24C RELIEF PRINTMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ )
PREREQUISITE: Art 14 or demonstration of comparable skill level to be determined by testing and/or portfolio of past printmaking work.

Intermediate-level relief printmaking processes, including experimentation with techniques in monotype, viscosity, woodblock, linoleum block, found object, and relief roll techniques of relief processes. (A, CSU)

## 24D SCREENPRINTING

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3)
PREREQUISITE: Art 14 or demonstration of comparable skill level to be determined by testing and/or portfolio of past printmaking work. Intermediate-level screenprinting processes, including experimentation in twelve techniques in photo, drawing, reductive screenprinting, multicolor on textiles, and cut film. (A, CSU)

## 25 MURAL PAINTING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=2$ ).
Offered 1 semester each academic year.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 , and Math 101 recommended.

An exploration of the aesthetic and practical applications of mural painting, including historical background, planning, techniques and execution. (A, CSU, UC)

## 27 ADVANCED DRAWING

3 units, 2 lecture hours, 4 lab hours, (Repeats = 2)
PREREQUISITE: Art 17, or demonstration of comparable skill level to be determined by testing and/or portfolio of past drawing work.

Drawing as a process to investigate ideas. (A, CSU, UC)

## 29 ADVANCED PAINTING: OIL/ACRYLIC

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ )
PREREQUISITE: Art 19, or demonstration of comparable skill level to be determined by testing and/or portfolio of past oil/acrylic painting work. ADVISORY: Eligibility for Math 101 recommended.

Advanced studies in the creative act of painting. Emphasis on oil/ acrylic media. (A, CSU, UC)

## 32 JEWELRY AND METALSMITHING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for Math 101 and English 125 and 126 or English 153 or ESL 67 and 68 recommended. Art 3 and/ or Art 4 recommended.

Introduction to a wide-range of methods, techniques and materials used to create small metal objects and jewelry. The formation and construction of functional and non-functional objects will be explored. (A, CSU)

## 34 ADVANCED PRINTMAKING

3 units, 2 lecture hours, 4 lab hours
PREREQUISITE: Art 24, or demonstration of comparable skill level to be determined by testing and portfolio of past printmaking work. Advanced graphic process: relief, intaglio, and planographic. (A, CSU, UC)

35 COLOR THEORY
3 units, 2 lecture hours, 4 lab hours, (CAN ART 22), (Formerly Art 16).
PREREQUISITE: None.
Seeing how color interacts with color, how colors change and relate one with another, and the role of color in the making of art. (A, CSU-GE, UC)

## 39B INTRODUCTION TO GRAPHIC DESIGN

3 units, 2 lecture hours, 4 lab hours, (Repeats = 2),
(Formerly Art 39)
PREREQUISITE: Graphic Communications 20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Creative thinking and concept development within the graphic design process. (A, CSU).

## 40B ADVANCED GRAPHIC DESIGN

1.5 units, 2 lecture hours, 4 lab hours, ( 9 weeks),
(Repeats = 2)
PREREQUISITE: Art 39B and Graphic Communications 39A.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Advanced creative conceptual thinking and problem solving (art direction) emphasizing marketing objectives and verbal communication presentation skills (designer to client). Introduction to creative collaboration with photographers, illustrators and copywriters. (A, CSU).

## 45 ARTREACH

5 units, 3 lecture hours, 6 lab hours, (Repeats = 3)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

During the first half of the semester the class will learn selected art presentations and workshops for elementary schools, grades 1-6. These workshops are presented by the instructor and class as a team in selected elementary schools during the second half of the semester. (A, CSU-GE)

## 49 GALLERY PRACTICES

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 9)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

An introduction to gallery/museum practices relating to exhibition selection, design, budgeting, and installation techniques and or ganization. An overview of the business aspects of art as a career. (A, CSU)

## 55 INTRODUCTION TO ASIAN ART

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and English 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the arts of Asia, including China, Japan, India, and Southeast Asia. (A, CSU)

## 65 INTRODUCTION TO PACIFIC ART

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and English 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the arts of Micronesia, Melanesia and Polynesia including Maori art from New Zealand, aboriginal art from Australia and art from the Pacific Islands-Samoa, Tonga, Fiji, Cook Islands, and Niue. (A, CSU)

## 251 OPEN ART STUDIO

1 unit, 3 lab hours, (Credit/No Credit), (Repeats = 3),
(Formerly Art 51)
COREQUISITE: Student must be concurrently enrolled in a studio art class (ceramics, crafts, drawing, graphics, painting, sculpture, textiles).

Supervised art studio practice for students enrolled in other art studio classes.

## ASIAN-AMERICAN STUDIES (ASAMER)

## 1 THE INDO-CHINESE AMERICAN

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The migration and settlement of the Indo-Chinese people into the U.S.A. The Hmong, Lao, Cambodian and Vietnamese experience. (A, CSU, UC)

## 10 HMONG CULTURE

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Detailed examination of the culture of the Hmong who have existed with a recognizable identity for thousands of years. Various aspects of Hmong culture as practiced by the Hmong in Laos. Marriage, shamanism, celebrations, funerals, music, and the clan structure. (A, CSU)

## 15 ASIAN-AMERICAN STATUS AND IDENTITY

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Historical and cultural background of major Asian groups which have immigrated into the United State. These include: Chinese, Japanese, Filipinos, and Southeast Asians. The course examines themes such as cultural identity, assimilation, interracial relationships, family influences, discrimination, and generational conflict. (A, CSU-GE, UC)

## 20 ASIAN AMERICAN LITERATURE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Reading, writing, and critical analysis of Asian American experiences, cultural adaptations, dilemmas of identity, and conflicts within and outside of the Asian community as expressed in short stories, poems, plays, novels, and non-fiction. (A, CSU, UC)

## 25 ASIAN AMERICAN SOCIAL ISSUES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Issues of contemporary relevance related to Asian Americans: relationship between men and women, media representation. Asian medicine vs. Western medicine, crime, political power, religion, and youth alienation. (A, CSU, UC)

## ASTRONOMY (ASTRO)

## 10 BASIC ASTRONOMY

3 units, 2 lecture hours, 2 lab hours, (generally evening only)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

The heavens above, from naked eye studies to theories of the entire cosmos. Optional field trips. (A, CSU-GE, UC, I)

## AUTOMOTIVE COLLISION REPAIR <br> TECHNOLOGY (acrt) formerly body and fender

## 51 BASIC ACR

10 units, 4 lecture hours, 16 lab hours, (Day
Program), (Formerly Body-Fender 51/52)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 recommended or Applied Technology 130.

Theory and practice in minor auto body repair. Principles of auto construction and design. Correct use and application of body shop hand tools, power tools and equipment. Diagnosis and repair of minor/major collision damage and body alignment. Emphasis on automotive safety procedures and shop safety. (A, CSU)

## 51A BASIC ACR

5 units, 2 lecture hours, 8 lab hours, (Evening
Program), (Formerly Body-Fender 51)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 recommended or Applied Technology 130.

Theory and practice in minor auto body repair. Principles of auto construction and design. Correct use and application of body shop hand tools, power tools and equipment. Diagnosis and repair of minor/major collision damage and body alignment. Emphasis on automotive safety procedures and shop safety. (A, CSU)

## 51B BASIC ACR

5 units, 2 lecture hours, 8 lab hours, (Evening
Program), (Formerly Body-Fender 52)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 recommended or Applied Technology 130.

Theory and practice in minor auto body repair. Principles of auto construction and design. Correct use and application of body shop hand tools, power tools and equipment. Diagnosis and repair of minor/major collision damage and body alignment. Emphasis on automotive safety procedures and shop safety. (A, CSU)

## 53 ADVANCED ACR

10 units, 4 lecture hours, 16 lab hours, (Day
Program), (Formerly Body-Fender 53/54)
PREREQUISITE: Automotive Collision Repair Technology 51.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 recommended or Applied Technology 130.

Estimation of body repair and refinishing, analysis of mechanical components, repair of auto plastics, auto body panel replacement and adjustment, restoration of corrosion protection, application of materials for spot repair and complete repaints, surface preparation on all types of substrates, paint materialsusedin refinishing, refinishing equipment, and other body shop repairs such as glass and trim removal and replacement. (A, CSU).

## 53A ADVANCED ACR

5 units, 2 lecture hours, 8 lab hours, (Evening
Program), (Formerly Body-Fender 53)
PREREQUISITE: Automotive Collision Repair Technology 51.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 recommended or Applied Technology 130.

Estimation of body repair and refinishing, analysis of mechanical
components, repair of auto plastics, auto body panel replacement and adjustment, restoration of corrosion protection, application of materials for spot repair and complete repaints, surface preparation on all types of substrates, paintmaterial sused in refinishing, refinishing equipment, and other body shop repairs such as glass and trim removal and replacement. (A, CSU).

## 53B ADVANCED ACR

5 units, 2 lecture hours, 8 lab hours, (Evening Program), (Formerly Body-Fender 54) PREREQUISITE: Automotive Collision Repair Technology 51.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 recommended or Applied Technology 130.

Estimation of body repair and refinishing, analysis of mechanical components, repair of auto plastics, auto body panel replacement and adjustment, restoration of corrosion protection, application of materials for spot repair and complete repaints, surface preparation on all types of substrates, paintmaterial susedin refinishing, refinishing equipment, and other body shop repairs such as glass and trim removal and replacement. (A, CSU).

## 55 SPRAY REFINISHING

2 units, 1 lecture hour, 3 lab hours, (Formerly BodyFender 55)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 and Math 101 recommended or Applied Technology 130.

Modern spray refinishing equipment and methods. (A, CSU)

## AUTOMOTIVE COLLISION REPAIR (Acrctc)

## 370 AUTOMOBILE COLLISION REPAIR AND PAINT REFINISHING

5 lecture hours, 25 lab hours, ( 30 weeks), ( 900 total hours), (Repeats $=3$ ), (Formerly BFVTC 70 and ACRVTC 370)
Use of hand tools and power tools; gas welding and MIG welding, plasma cutter, metal shrinking, and plastic filler work; basic metal straightening, major body repairs, plastic panels repairs; basic frame and alignment repair; rust damage reconstruction sanding, masking, and introduction to spray painting, and advanced spray painting and refinishing.

## AUTOMOTIVE TECHNOLOGY (Autot)

## 9 AUTOMOTIVE ESSENTIALS

3 units, 3 lecture hours, (See also Industrial Education 9)
PREREQUISITE: None.
Automotive components, service tools, and equipment. Designed for the prospective industrial arts teacher and students needing an exploratory course in the automotive field. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborativelearning activities specific to automotive technology. Learning objectives established specific to automotive technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 51 PRINCIPLES OF ENGINE THEORY AND SERVICE

3 units, 6 lecture hours, ( 9 weeks), (Repeats $=3$ ),
(See also Automotive Technology GM 51), (Formerly
Automotive Mechanics 51)
COREQUISITE: Automotive Technology 9 or and Auto Tech 51L. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Engine design and operation including diagnosis, failure analysis, and service practices. (A, CSU)

## 51L AUTOMOTIVE ENGINE LABORATORY

2 units, 14 lab hours, ( 9 weeks) (Repeats = 3), (See
also Automotive Technology GM 51L), (Formerly
Automotive Mechanics 51L)
COREQUISITE: Automotive Technology 9 and Auto Tech 51. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Engine laboratory for the Automotive Technology major. Use of engine related equipment. Emphasis on engine rebuilding and machining practices. (A, CSU)

## 52 AUTOMOTIVE ELECTRICAL SYSTEMS

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats = 3), (See also Automotive Technology GM
52), (Formerly Automotive Mechanics 52)

COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Basic electrical theory and operation of the automotive electrical components and systems. Testing, diagnosing, and repairing electrical components and systems including automotive computer controls using necessary equipment. (A, CSU)

## 53 ENGINE PERFORMANCE

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats = 3), (See also Automotive Technology GM 53)

COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Engine theory and construction related to engine performance. History and theory of operation for the different types of automotive systems. Latest technologies in automotive fuel delivery, emission control, and ignition systems. Testing, diagnosing, and repairing fuel, emission, and ignition systems. Use of necessary test equipment. (A, CSU)

## 54 SUSPENSION, STEERING, AND WHEEL ALIGNMENT

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats $=3$ ), (See also Automotive Technology GM
54), (Formerly Automotive Mechanics 53)

COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Theory and practical application of basic 4 -wheel alignment, steering, and suspension systems. Operating principles, component description, diagnosis, repair, and service adjustments. (A, CSU)

55 POWER TRAINS: TRANSMISSIONS/TRANSAXLES, DIFFERENTIALS, AND DRIVEAXLES
5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats = 3), (See also Automotive Technology GM
55), (Formerly Automotive Mechanics 54)

COREQUISITE: Automotive Technology 9. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

The principles of automotive power train systems: automatic and manual transmissions/transaxles, transfer cases, clutch assemblies, driveaxles, drivelines, and differentials. Diagnosis, service, and repair. (A, CSU)

## 56 AUTOMOTIVE BRAKING SYSTEMS

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks), (Repeats $=3$ ), (See also Automotive Technology GM 56)

COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Complete disassembly and reassembly of various automotive braking systems. Operating principles, component description, diagnosis, repair, and service adjustments. (A, CSU)

## 57 AUTOMOTIVE HEATING, VENTILATION, AIR CONDITIONING, AND ADVANCED ELECTRONICS

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks), (Repeats $=3$ ), (See also Automotive Technology GM 57), (Formerly Automotive Technology 60)

PREREQUISITE: Automotive Technology 52 and 53 or equivalent.
Theory and practice in automotive heating, ventilation, and air conditioning systems/components. R-12 and R-134A refrigeration systems, recovery, recycling, charging, leak, and performance testing. Diagnosis, service, and repair of the advance automotive electronics, automatic temperature/climate control, and other computer controlled systems found on today's late model vehicles. (A, CSU)

58 INDIVIDUALIZED SKILLS TRAINING (IST) LABORATORY
1 unit, 8 lab hours, ( 9 weeks), (Repeats = 3)
ADVISORY: Eligibility for ENGL 125 and 126 or ENGL 153 or ESL 67 and 68 and MATH 101 recommended.

Designed for students to complete assigned automobile manufacturers' training modules: Hands-On (HO), Computer-Based Training (CBT), Web-Based Training (WBT), and/or Video-Based Training (VBT) with instructor supervision. Provide the most current and up-to-date technology for students pursuing a career in Automotive Technology. Designed to accompany work experience in the trade. (A, CSU)

## 261 CLEAN AIR CAR - DIAGNOSIS AND REPAIR

3 units, 4.5 lecture hours, 4.5 lab hours, ( 9 weeks),
(Repeats = 3), (Formerly Automotive Technology 61)
PREREQUISITE: Auto Tech 52 or Auto Tech 53 or 9 semester units, 13 quarter units, or 180 hours of instruction at an accredited or bureau recognized college or trade school in the areas of electrical and engine performance. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Introduction to Smog Check Program diagnosis and repair procedures; engine theory and electrical systems; automotive computer control system operations; on-vehicle diagnosing and repair mandated by the Bureau of Automotive Repair. (Note: Basic Area Technician training program certified.)

## 261A THE CLEAN AIR CAR I

3 units, 4.5 lecture hours, 4.5 lab hours, ( 9 weeks), (Repeats = 3), (Formerly Automotive Technology 61 and 61A)
PREREQUISITE: Auto Tech 52, Auto Tech 53 or Auto Tech 261, 13 quarter units, or 180 hours of instruction at an accredited or bureau recognized college or trade school in the areas of electrical and engine performance. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Designed to prepare students for the Bureau of Automotive Repair Smog Licensing Exam. Smog Check rules and regulations covered in detail. Introduction to Smog Check Program inspection procedures and policies mandated by the Bureau of Automotive Repair. (Note: Basic Area Technician training program certified.) Those who do not meet prerequisite/automotive experience are allowed to take this course but will not be certified as eligible to take the licensing examination and/ or Intern Technician license.

## 261B THE CLEAN AIR CAR II

1 unit, 3 lecture hours, 3 lab hours, ( 5 weeks), (Repeats $=3$ ), (Formerly Automotive Technology 61B)
PREREQUISITE: Automotive Technology 261A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Prepares students/technicians for the Bureau of Automotive Repair Smog Chock II Enhanced Area Testing. Emphasis on theory, diagnosis, and repair of emission related systems and components. Introduction to Smog Check II Program procedures and on-vehicle diagnosing and repair mandated by the Bureau of Automotive Repair. (Note: Enhanced Area Technician training program certified.) Those who do not meet the prerequisites are allowed to take this course but will not be certified as eligible to take the licensing examination.

## 261C BAR UPDATE TRAINING: OBD II

1 unit, 3 lecture hours, 4 lab hours, ( 4 weeks)
PREREQUISITE: Automotive Technology 261B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Prepares students/technicians for the Bureau of Automotive Repair (BAR) examination. Emphasis on theory, diagnosis, and repair of emission related systems and components in the On Board Diagnostics Second Generation (OBD II) system. Introduction to on-vehicle diagnosing and repair mandated by the Bureau of Automotive Repair. Those who do not meet the prerequisite are allowed to take this course but will not be certified as eligible to take the (BAR) licensing examination. (Note: Enhanced Area Technician training program certified.)

262A (A6) ELECTRICAL/ELECTRONIC TRAINING PROGRAMBAR/ASE (ALTERNATIVE)
1 unit, 4 lecture hours, 4 lab hours, ( 3 weeks), (Repeats $=3$ ), (Formerly Automotive Technology 62A)
PREREQUISITE: Automotive Technology 261A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Prepares students/technicians for the Bureau of Automotive Repair (BAR) and National Institute for Automotive Service Excellence (ASE) examination. Testing, diagnosing, and repairing electrical components and systems including automotive computer controls using necessary equipment as mandated by the BAR. Those who do not meet the prerequisites are allowed to take this course but will not be certified by the Bureau of Automotive Repair and/or the National Institute for Automotive Service Excellence (ASE) in the A6-Electrical/Electronic area.

262B (A8) ENGINE PERFORMANCE TRAINING PROGRAMBAR/ASE (ALTERNATIVE)
1 unit, 4 lecture hours, 4 lab hours, ( 3 weeks),
(Repeats = 3), (Formerly Automotive Technology
62A)
PREREQUISITE: Automotive Technology 261A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Prepares students/technicians for the Bureau of Automotive Re pair (BAR) and National Institute for Automotive Service Excellence (ASE) examination. Testing, diagnosing, and repairing fuel, emission, and ignition systems including automotive computer controls using necessary equipment as mandated by the BAR. Those who do not meet the prerequisites are allowed to take this course but will not be certified by the Bureau of Automotive Repair and / or the National Institute for Automotive Service Excellence (ASE) in the A8-Engine Performance area.

262C (L1) ADVANCED ENGINE PERFORMANCE TRAINING PROGRAM-BAR/ASE (ALTERNATIVE)
1 unit, 4 lecture hours, 4 lab hours, (4 weeks),
(Repeats $=3$ ), (Formerly Automotive Technology 62C)
PREREQUISITE: Automotive Technology 261A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Prepares students/technicians for the Bureau of Automotive Repair (BAR) and National Institute for Automotive Service Excellence (ASE) examination. Testing, diagnosing, and repairing fuel, emission, and ignition systems including automotive computer controls using necessary equipment as mandated by the BAR. Those who do not meet the prerequisites are allowed to take this course but will not be certified
by the Bureau of Automotive Repair and/or the National Institute for Automotive Service Excellence (ASE) in the L1-Advanced Engine Performance area.

## 281A AUTOMOTIVE POWER TRAIN SYSTEMS I

3 units, 3 lecture hours, (Repeats = 3), (Formerly Automotive Technology 81A)
PREREQUSITE: Automotive Technology or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

The principles of automotive power train systems: automatic and manual transmissions, clutch assemblies, drivelines, and differentials. Diagnosis, service, and repair.

## 281B AUTOMOTIVE POWER TRAIN SYSTEMS II

3 units, 3 lecture hours, (Repeats = 3), (Formerly
Automotive Technology 81B)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

The principles of automotive power train systems: automatic and manual transaxles, driveaxles, and transfer cases. Diagnosis, service, and repair.

## 282A SUSPENSION AND WHEEL ALIGNMENT

3 units, 3 lecture hours, (Repeats $=3$ ), (Formerly
Automotive Technology 82A)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Theory and practical application of basic 4 -wheel alignment and suspension systems. Operating principles, component description, diagnosis, repair, and service adjustments.

## 282B AUTOMOTIVE BRAKING SYSTEMS

3 units, 3 lecture hours, (Repeats $=3$ ), (Formerly
Automotive Technology 82B)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Complete disassembly and reassembly of various automotive braking systems. Operating principles, component description, diagnosis, repair, and service adjustments.

## 283A ENGINE PERFORMANCE AND DIAGNOSIS

3 units, 3 lecture hours, (Repeats = 3), (Formerly
Automotive Technology 83A)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Latest technologies in automotive fuel delivery, emission control, and ignition systems. Testing, diagnosing, and repairing fuel, emission, and ignition systems. Introduction of diesel theory, application, and operation. Use of necessary test equipment.

## 283B ELECTRICAL SYSTEMS

3 units, 3 lecture hours, (Repeats $=3$ ), (Formerly
Automotive Technology 83B)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Basic electrical theory and operation of the automotive electrical components and systems. Testing, diagnosing, and repairing electrical components and systems including automotive computer controls using necessary equipment.

## 284 AUTOMOTIVE AIR CONDITIONING

3 units, 3 lecture hours, (Repeats $=3$ ) (Formerly Automotive Technology 84)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Theory and practice in automotive heating, ventilation, and air conditioning systems/components. R-12 and R-134A refrigeration systems, recovery, recycling, charging, leak, and performance testing. Diagnosis, service, and repair of automatic temperature/climate control.

## 285 AUTOMOTIVE ENGINES

3 units, 3 lecture hours, (Repeats $=3$ ), (Formerly
Automotive Technology 85)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Engine design and operation including diagnosis, failure analysis, and service practices.

## 286 AUTOMOTIVE INFORMATION SYSTEMS

3 units, 3 lecture hours, ( 9 weeks), (Repeats = 3),
(Formerly Automotive Technology 86)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Automotive service information for components, specifications, procedures, tools, and equipment. Designed for the automotive technology student or automotive technician in the field.

## 292 ASE CERTIFICATION PREPARATORY

2 units, 4 lecture hours, ( 9 weeks), (Repeats $=30$, (Formerly Automotive Technology 92)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Preparation for the National Institute for Automotive Service Excellence (ASE) Certifications in the following areas: Engine Repair (A1), Automatic Transmission/Transaxle (A2), Manual Drive Train and Axles (A3), Suspension and Steering (A4), Brakes (A5), Electrical/Electronic Systems (A6), Heating and Air Conditioning (A7), and Engine Performance (A8).

## 294 LAMP AND BRAKE ADJUSTMENT/CERTIFICATION PREPARATION

1.5 units, 3 lecture hours, ( 9 weeks), (Repeats $=3$ ), (Formerly Automotive Technology 94)
PREREQUISITE: Automotive Technology 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Preparation for the State of California Automotive Technician Lamp and Brake Adjustment/Certification examination.

## AUTOMOTIVE MECHANICS (amctc)

## 371 ENGINE REPAIR

10 lecture hours, 20 lab hours, ( 20 weeks), ( 600
total hours), (Repeats = 3), (Formerly AMVTC 71)
Preparation for ASE certification in engine repair. Practical and theoretical training in general engine diagnosis, cylinder heads, valve train, engine block, lubrication, and cooling systems.

## 372 ENGINE PERFORMANCE

10 lecture hours, 20 lab hours, ( 30 weeks), (900 total hours), (Repeats = 3), (Formerly AMVTC 72)
Basic skills necessary for an entry level job. Competency-based similar to those operations performed by automotive shop professionals. Prepares students to take the ASE certification tests.

## 373 BRAKES, SUSPENSION AND STEERING

10 lecture hours, 20 lab hours, ( 20 weeks), ( 600
total hours), (Repeats $=3$ ), (Formerly AMVTC 73)
Preparation for ASE certification in the brake, suspension, and steering systems. Practical and theoretical training in wheel alignment, wheel balancing, wheel bearing service, suspension systems, steering systems, brake systems, CVjoints, and axles.

## AUTOMOTIVE TECHNOLOGY: GENERAL MOTORS ASEP PROGRAM (ATgM)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on thejob, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to automotive technology. Learning objectives established specific to automotive technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 51 PRINCIPLES OF ENGINE THEORY AND SERVICE

3 units, 6 lecture hours, ( 9 weeks), (Repeats $=3$ ),
(See also Automotive Technology 51)
COREQUISITE: Automotive Technology 9 and ATGM 51L. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Engine design and operation including diagnosis, failure analysis, and service practices. Designed to accompany work experience in the trade. (A, CSU)

## 51L AUTOMOTIVE ENGINE LABORATORY

2 units, 14 lab hours, ( 9 weeks), (Repeats = 3), (See
also Automotive Technology 51L)
COREQUISITE: Automotive Technology 9 and ATGM51. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Engine laboratory for the Automotive Technology major. Use of engine related equipment. Emphasis on engine rebuilding and machining practices. Designed to accompany work experience in the trade. (A, CSU)

## 52 AUTOMOTIVE ELECTRICAL SYSTEMS

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks), (Repeats =3), (See also Automotive Technology 52), (Formerly Automotive Technology General Motors 32) COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Basic electrical theory and operation of the automotive electrical components and systems. Testing, diagnosing, and repairing electrical components and systems including automotive computer controls using necessary equipment. Designed to accompany work experience in the trade. (A, CSU)

## 53 ENGINE PERFORMANCE

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats = 3), (See also Automotive Technology 53), (Formerly Automotive Technology General Motors 35) COREQUISITE: Automotive Technology 9. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Engine theory and construction related to engine performance. History and theory of operation for the different types of automotive systems. Latest technologies in automotive fuel delivery, emission control, and ignition systems. Testing, diagnosing, and repairing fuel, emission, and ignition systems. Use of necessary test equipment. Designed to accompany work experience in the trade. (A, CSU)

## 54 SUSPENSION, STEERING, AND WHEEL ALIGNMENT

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats = 3), (See also Automotive Technology 54),
(Formerly Automotive Technology General Motors 31)
COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Theory and practical application of basic 4 -wheel alignment, steering, and suspension systems. Operating principles, component description, diagnosis, repair, and service adjustments. Designed to accompany work experience in the trade. ( $\mathrm{A}, \mathrm{CSU}$ )

## 55 POWER TRAINS: TRANSMISSIONS/TRANSAXLES, DIFFERENTIALS, AND DRIVEAXLES

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats = 3), (See also Automotive Technology 55), (Formerly Automotive Technology General Motors 36)
COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

The principles of automotive power train systems: automatic and manual transmissions/transaxles, transfer cases, clutch assemblies,
driveaxles, drivelines, and differentials. Diagnosis, service, and repair. Designed to accompany work experience in the trade. (A, CSU)

## 56 AUTOMOTIVE BRAKING SYSTEMS

5 units, 4 lecture hours, 16 lab hours, ( 9 weeks),
(Repeats = 3), (See also Automotive Technology 56)
COREQUISITE: Automotive Technology 9. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Complete disassembly and reassembly of various automotive braking systems. Operating principles, component description, diagnosis, repair, and service adjustments. Designed to accompany work experience in the trade. (A, CSU)

## 57 AUTOMOTIVE HEATING, VENTILATION, AIR CONDITIONING, AND ADVANCED ELECTRONICS

 5 units, 4 lecture hours, 16 lab hours, ( 9 weeks), (Repeats = 3), (See also Automotive Technology 57), (Formerly Automotive Technology General Motors 34) PREREQUISITE: Automotive Technology/Automotive Technology GM 52 and 53 or equivalent.Theory and practice in automotive heating, ventilation, and air conditioning systems/components. R-12 and R-134A refrigeration systems, recovery, recycling, charging, leak, and performance testing. Diagnosis, service, and repair of the advance automotive electronics, automatic temperature/climate control, and other computer controlled systems found on today's late model vehicles. Designed to accompany work experience in the trade. (A, CSU)

## BIOLOGY (BIOL)

## 1 PRINCIPLES OF BIOLOGY

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The cellular and chemical basis of life including living systems, genetics, evolution, and the origin of life. Recommended for life science and allied health majors. Fulfills prerequisite for Biology 4, 6, 7, 20, 22, 24, 31. (CAN BIOL 2) (A, CSU-GE, UC, I)

## 1H HONORS PRINCIPLES OF BIOLOGY

4 units, 3 lecture hours, 2 lab hours, (Formerly
HONORS 1B)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing page 272.

Recommended for preprofessional and life science majors. Fulfills prerequisite for Biology $4,6,7,20,22,24,31$. The cellular and
chemical basis of life including living systems, genetics, evolution and the origin of life; ecology and environmental concerns. Honors sections cover additional subjects such as public health issues and the use of multimedia equipment for a science presentation which requires research. Honors sections may also include field trips and guest speakers. (CAN BIOL 2) (A, CSU-GE, UC, I)

## 3 ECOLOGICAL APPROACH TO BIOLOGY

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Recommended for the non-biological science and preeducation majors. Integrated approach using ecology to establish interrelationships between plants, animals, man and the planet earth; local flora, fauna and biotic communities. Field trips required. (A, CSU-GE, UC, I)

## 4 PRINCIPLES OF ZOOLOGY

5 units, 3 lecture hours, 6 lab hours, (Formerly
Zoology 1)
PREREQUISITE: Biology 1 or Biology 3 or equivalent. Comple tion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Animal forms using the phylogenetic approach; morphology, physiology, and ecology relative to the major phyla. Field trips required. (CAN BIOL 4) (A, CSU-GE, UC, I)

## 6 PRINCIPLES OF BOTANY

5 units, 3 lecture hours, 6 lab hours, (Formerly Botany 1)
PREREQUISITE: Biology 1 or Biology 3 or equivalent. Comple tion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Morphological, physiological, ecological, genetic and taxonomic relationships with emphasis on seed plants. Field trips required. (CAN BIOL 6) (A, CSU-GE, UC, I)

7 FIELD BIOLOGY
4 units, 3 lecture hours, 3 lab hours, (Spring)
PREREQUISITE: Biology 1 or Biology 3 or equivalent. Comple tion within the last 5 years recommended. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Plant and animal investigations in taxonomy and ecology. Field trips required. (A, CSU-GE, UC)

## 8A BIOTECHNOLOGY 1

4 units, 2 lecture hours, 6 lab hours.
PREREQUISITE: Biology 1 or equivalent and Chemistry 3A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Emphasis on media and reagent preparation, the use and operation of laboratory equipment and the isolation and analysis of DNA. Part of a program providing an intensive laboratory environment that teaches the skills needed to serve as a technician in agricultural biotechnology. (A, CSU)

## 8B BIOTECHNOLOGY 2

4 units, 2 lecture hours, 6 lab hours.
PREREQUSITE: Biology 8A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

The most common industry techniques used to purify, clone, map and sequence DNA; and express, purify and characterize proteins. Part of a program providing an intensive laboratory environment that teaches the skills needed to serve as a technician in agricultural biotechnology. (A, CSU)

## 8C BIOTECHNOLOGY 3

4 units, 2 lecture hours, 6 lab hours.
PREREQUSITE: Biology 8A or equivalent. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Advanced techniques including plant tissue culture, DNA fingerprinting, PCR and Westerm blotting. Special topics presented by industry professionals which may include fermentation technology, ELISA and plant transformation. Field cultivation of plants. Part of a program providing an intensive laboratory environment that teaches the skills needed to serve as a technician in agricultural biotechnology. (A, CSU)

## 20 HUMAN ANATOMY

4 units, 3 lecture hours, 3 lab hours
PREREQUSITE: Biology 1 or equivalent. Completion within the last five(5) years recommended. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Systematic relationship of the gross and microscopic structures of the human body. Generally not open to students with credit in Biology 24. (CAN BIOL 10) (A, CSU-GE, UC, I)

## 22 HUMAN PHYSIOLOGY

5 units, 4 lecture hours, 3 lab hours
PREREQUSITE: Biology 20 or equivalent and Chemistry 3 A or equivalent. Completion within last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Functional relationship of human organs and body systems. Three units of credit for student with credit in Biology 24. (CAN BIOL 12) (A, CSU, UC, I)

## 24 HUMAN ANATOMY AND PHYSIOLOGY

5 units, 4 lecture hours, 3 lab hours
PREREQUISITE: Biology 1 or equivalent. Completion within the last five (5) years recommended. Not open to students with credit in both Biology 20 and 22. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Systematic relationship of the gross and microscopic structures of the human body and their functional relationships. Intended primarily for students enrolled in or planning to enroll in college-level allied health programs. (A, CSU-GE)

## 31 MICROBIOLOGY

4 units, 3 lecture hours, 5 lab hours
PREREQUISITE: Biology 1 or equivalent and Chemistry 3A or equivalent. Completion of both within the last five years recommended. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Classification, morphology, identification, physiology, and genetics of microorganisms. Field trips may be required. (CANBIOL14) (A, CSUGE, UC, I)

## 46 ELEMENTARY HORTICULTURE

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Growth and care of ornamental and vegetable plants including plant anatomy, general maintenance, weeds, pests, diseases, fertilizers, soils, pruning, and training. (A, CSU)

## 47 TOPICS IN BIOLOGY

1-3 units, 1-3 lecture hours, 0-3 lab hours, (Repeats
= 2)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Lectures, laboratories and/or field work presented by biology faculty. (A, CSU, UC)

151 ELEMENTARY HUMAN ANATOMY AND PHYSIOLOGY
4 units, 3 lecture hours, 3 lab hours, (Formerly Biology 51)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. High school biology and chemistry or equivalent recommended.

Developmental, structural and functional relationships of the human body systems along with medical terminology. Not intended for students entering registered nursing, dental hygiene, radiologic technology or respiratory care practitioner programs. (A)

261 INTERNET AND COMPUTER SKILLS LABORATORY
.2-1 unit, 3-6 lab hours, (16 weeks), (Credit/No
Credit), $($ Repeats $=3)$
PREREQUSITE: None.
Supervised use of microcomputers and the Internet. Reinforcement of concepts from classroom studies and development of problem solving abilities on an independent basis. Grade based on hours worked in lab:
(a) .2 units for minimum of 10 hours;
(b) .4 units for minimum of 19 hours;
(c) .6 units for minimum of 29 hours;
(d) .8 units for minimum of 39 hours;
(e) 1 unit for minimum of 48 hours.

## 270 BIOLOGY READINESS

3 units, 2 lecture hours, 2 lab hours, (Formerly
Biology 70)
Biological principles and concepts with special emphasis on selfimprovement through basic reading, writing, and spelling activities. Recommended as a preparatory course for Biology 1 or 3 for those who have not had high school biology or who are not eligible for English 125.

## BODY AND FENDER

SEE AUTOMOTIVE COLLISION REPAIR TECHNOLOGY

## BOTANY see biology

## BUILDING SAFETY AND CODE ADMINISTRATION (BSCA)

10 BUILDING CODE
3 units, 3 lecture hours, (Repeats = 3), (See also Architecture 31)
PREREQUSITE: None.
Uniform FHA, Fresno city and county building zoning ordinances. (A, CSU)

## 12 PLANS EXAMINING

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Building Safety and Code Administration 10 recommended.

The application of uniform building codes, zoning ordinances, energy conservation and state handicap requirements to single family housing and light commercial construction. To prepare for I.C.B.O. certification. (A, CSU)

## 14 BUILDING INSPECTION

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Building Safety and Code Administration 10 recommended.

Familiarization with the methods of inspection of residential and type V construction; to prepare for I.C.B.O. certification. (A, CSU)

15 PLUMBING CODE AND INSPECTION
3 units, 3 lecture hours, (Repeats = 3)
PREREQUISITE: None.
Uniform Plumbing Code, construction supervision and inspection; to prepare for I.C.B.O. certification. (A, CSU)

## 16 MECHANICAL CODE AND INSPECTION

3 units, 3 lecture hours, (Repeats $=3$ )
PREREQUISITE: None.
Uniform mechanical code, construction supervision and inspection; to prepare for I.C.B.O. certification. (A, CSU)

## 17 ELECTRICAL CODE AND INSPECTION

3 units, 3 lecture hours, (Repeats $=3$ )
PREREQUISITE: None.
National Electrical Code, supervision, inspection and application of the National Electrical Code. To prepare for I.C.B.O. certification. (A, CSU)

## 20 ADVANCED BUILDING CODE

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Building Safety and Code Administration 10 recommended.

Uniform Building Code, FHA, Fresno city and county building and zoning ordinances as they apply to light commercial and industrial buildings. (A, CSU)

## 22 ADVANCED PLANS EXAMINING

3 units, 3 lecture hours, (Repeats $=3$ )
COREQUISITE: Building Safety and Code Administration 20. AD-
VISORY: Building Safety and Code Administration 12 recommended.

The application of uniform building codes, zoning ordinances, energy conservation and state handicap requirements to commercial and industrial construction. To prepare for I.C.B.O. certification. (A, CSU)

## 24 ADVANCED BUILDING INSPECTION

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Building Safety and Code Administration 14 recommended.

Familiarization with the methods of inspection of commercial and industrial construction. To prepare for I.C.B.O. certification. (A, CSU)

## BUILDING TECHNOLOGY

SEE ARCHITECTURE OR CONSTRUCTION

## BUSINESS ADMINISTRATION (BA)

## 5 BUSINESS COMMUNICATIONS

3 units, 3 lecture hours, (See also BT 5)
PREREQUSITE: BT 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Business letters, memos, and some report writing with emphasis on organization, correctness, completeness, conciseness, and tone. (A, CSU)

## 7 BUSINESS ATTITUDES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Personality traits which cause difficulties, desirable personality traits, preventing conflict, handling conflict, resolving problems, accepting criticism, understanding self-concept, personal and business goals, problem solving, managing stress, personal confidence, ethnic issues, forgiveness, and cultural and international mannerisms. (A, CSU)

## 8 BUSINESS PROTOCOL AND ETIQUETTE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Dress and attire, office etiquette, disciplining employees, cafete ria and restaurant courtesies, business greetings and introductions (including handshakes), business etiquette in correspondence, ethics, tattoos and body piercing, and international etiquette. (A, CSU)

## 10 INTRODUCTION TO BUSINESS

3 units, 3 lecture hours, (See also Management 10)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A survey course of the basic business areas: economic systems, management, marketing, finance, operations, human resources, law, entrepreneurship and international business. (A, CSU, UC)

## 10H HONORS INTRODUCTION TO BUSINESS

3 units, 3 lecture hours, (See also Management 10H)
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

Description: A survey of the basic business areas: economic systems, management, marketing, finance, operations, human resources, law, entrepreneurship, and international business, with enrichment and service learning activities and linkages to a Business Economics Honors colloquium. (A, CSU)

## 13 MANAGING QUALITY ORGANIZATIONS -

## AN INTRODUCTION

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Provides a systematic approach to constant improvement throughout an organization. An introduction to the themes, teams, and tools and techniques of continuous quality improvement. Emphasis on the quality systems approach to customer focus, continuous improvement, and employee involvement. (A, CSU)

## 14 MANAGING QUALITY ORGANIZATIONS - THE TEAMS

3 units, 3 lecture hours, (Repeats = 3)
ADVISORY: BA 13 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Develops skills in team building, group problem solving, and facilitating. Reveals the techniques utilized by creative organizations that empower their employees to meet the quality challenge. Emphasis is on team development and group dynamics as related to Total Quality Management. (A, CSU)

## 16 BUSINESS AND TECHNICAL REPORT WRITING

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Research, interpretation, written memoranda, briefs, and speculations. (A, CSU)

18 BUSINESS AND THE LEGAL ENVIRONMENT
4 units, 4 lecture hours, (Formerly BA 18A)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Law and the legal system: administrative, tort, criminal, contracts, agency, labor and employment, and international business law. Case studies utilized. (CAN BUS 8) (A, CSU, UC)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to business administration. Learning objectives established specific to business administration. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 LAW AND THE LEGAL SYSTEM

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

What every educated citizen should know about law as a social process and about American law and legal institutions. The historical origins of law as well as the role law plays in modern western and nonwestern societies. Institutional sources of law; legal reasoning; judicial decision making and remedies; an overview of the civil and criminal litigation process; administrative law and procedure; alternative dispute resolution mechanisms; ethics and the legal system. (A, CSU-GE, UC)

## 21 BUSINESS LAW

3 units, 3 lecture hours, (Formerly BA 18B)
PREREQUISITE: BA18. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Prepares prospective owners, managers, and consumers to cope with legal business decisions regarding negotiable instruments, personal property, bailments, and sales. Case studies utilized. (A, CSU, UC)

## 22 CONSUMER RIGHTS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

What every consumer should know about his/her legal rights and remedies regarding routine daily personal and business transactions/ events. Specific topics include consumer warranties, automobile acci-

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dents, credit card laws, consumer credit reports, residential leases, unlawful detainer, drivers license rights and responsibilities, employment and labor laws, small claims court procedures, repossessions of per sonal property, buying and leasing of automobiles, Internet shopping and mail order. (A, CSU)

## 25 INTERNATIONAL BUSINESS - AN INTRODUCTION

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Focus on practical terminology, concepts, trade agreements, associations, relationships, monetary systems, and issues that are unique to business operations with a global perspective. Focus on general considerations for international trade in constantly changing environments, including foreign investments, international trade theories and economic development, international monetary system, organizations, foreign environment, and how management effectively deals with environmental forces. (A, CSU)

## 27 STUDENTS IN FREE ENTERPRISE

1-3 units: 1 unit, 1 lecture hour; 2 units, 1 lecture
hour, 3 lab hours, 3 units, 1 lecture hour, 6 lab
hours, $($ Repeats $=3)$
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Business leadership training and experience using the student leadership organization, Students In Free Enterprise, which is affiliated with the international organization, Students In Free Enterprise, Inc. Participation on college sponsored teams to compete against students from other colleges while acquiring knowledge and skills regarding teaching, service, leadership, organization, networking, and communication as it relates to the community. (A, CSU)

## 28 E-LAW AND ETHICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the legal and ethical issues involving technology and the use of the Internet. (A, CSU)

## 30 PERSONAL FINANCE

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Budgeting, credit, insurance, securities, real estate, taxes, and estate planning. (A, CSU)

## 31 HUMAN RESOURCES MANAGEMENT

3 units, 3 lecture hours, (See also Management 31)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Human resource planning, recruitment, selection, training and development, evaluation, compensation, labor relations, and motivation. (A, CSU)

## 32 LABOR RELATIONS

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History and present status of the labor movement. (A, CSU)

## 33 HUMAN RELATIONS IN BUSINESS

3 units, 3 lecture hours, (See also Management 33)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Emphasis on employee's interaction with coworkers, clients, supervisors/managers, and the organization. Emphasis on communication, societal and cultural differences, conflict resolution, career selection and entry, interpersonal relations, motivation, attitudes, and group dynamics. Cases utilized. (A, CSU)

## 34 INVESTMENTS

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Technical and fundamental evaluation of real estate, insurance, collectors' items, commodities, stocks, bonds, and institutional portfolio management. (A, CSU)

## 35 BUSINESS FINANCIAL MANAGEMENT

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Basic financial decision making for business owners and financial managers. Financial statement analysis, working capital management, capital budgeting, time value of money, sources of funding, and financial markets and institutions.

## 38 OPERATION OF THE SMALL BUSINESS

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Asystematic approach to developing and managing a small business. Emphasis on discussions and practical exercises to develop expertise in the operations, marketing, human resource utilization, and financing of the small business venture. ( $\mathrm{A}, \mathrm{CSU}$ )

## 40 SUPERVISION AND LEADERSHIP SKILLS

3 units, 3 lecture hours, (See also Management 40), (Formerly BA 39)
ADVSORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Focus on first-level supervision. Emphasis on planning, organizing, staffing, directing, and controlling. (A, CSU)

## 43 MANAGEMENT AND TACTICAL PLANNING

3 units, 3 lecture hours, (See also Management 43)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Organization and systems, planning, MB0, decisions, communicating and motivation. (A, CSU)

## 44 WOMEN IN MANAGEMENT

3 units, 3 lecture hours, (See also Women's Studies
44)

ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Management and entrepreneurial techniques for women seeking leadership skills, particularly for managers and those aspiring to executive levels. (A, CSU)

50 BUSINESS CONCEPTS
1.5 units, 1.5 lecture hours, ( 9 weeks), (Formerly

Business Administration 9)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Business basics of marketing, finance, business planning, managing personnel, and personal time management for the non-business major. (A, CSU)

## 51 SURVEY OF ENTREPRENEURSHIP

1.5 units, 1.5 lecture hours, (Repeats $=1$ )

ADVISORY: Business Administration 50 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduces students (potential entrepreneurs) to the considerations of opening a new business. (A, CSU)

52 ENTREPRENEURIAL STRATEGIES
3 units, 3 lecture hours
ADVSORY: BA 51 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic issues entrepreneurs must address: determining the feasibility of the business idea; developing a business plan; legal issues and considerations; marketing the business, financing the business, and resources for help/research/information. (A, CSU)

## BUSINESS \& TECHNOLOGY (BT)

## 1 BEGINNING TYPING

3 units, 3 lecture hours, 2 lab hours, (Formerly BSS
1A and Business Information Processing 1)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Typing by touch; developing speed and accuracy; producing correspondence, reports, and outlines. (A, CSU)

## 2 WORD PROCESSING I

3 units, 3 lecture hours, 2 lab hours, (Formerly BSS
1B and Business Information Processing 2)
ADVISORY: BT 1 or keyboard 125 words per minute and ability to keyboard by touch. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Typing review; building speed and accuracy; producing advanced correspondence, tabulation, manuscripts, outlines, and business forms. (A, CSU)

## 3 WORD PROCESSING II - ADVANCED APPLICATIONS

6 units, 6 lecture hours, 4 lab hours, (Formerly
Business Information Processing 12)
ADVISORY: BT 2 recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

On-line training on two word processing programs. Adapting word processing techniques to modern office procedures. Advanced applications. (A, CSU)

## 4 TEN-KEY CALCULATION

2 units, 2 lecture hours, 1 lab hour, (Formerly
Business General Office 8)
ADVISORY: Eligibility for Math 101 recommended.
The operation of electronic desktop calculators and the application of these calculators to business-oriented problems. The development of an employable ten-key touch skill on the ten-key keyboard. (A, CSU)

## 5 BUSINESS COMMUNICATIONS

3 units, 3 lecture hours, (See also Business
Administration 5), (Formerly BSS 5 and Business
General Office 5)
PREREQUISITE: BT 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Business letters, memos, and some report writing with emphasis on organization, correctness, completeness, conciseness, and tone. (A, CSU)

## 9 INTEGRATED COMPUTER APPLICATIONS

3 units, 3 lecture hours, 2 lab hour, (Formerly
Business Information Processing 9)
ADVISORY: Typing 25 words per minute. Eligibility for English
125 and 126 or English 153 or ESL 67 and 68 recommended.
An introduction to integrated software for office application using microcomputers including the concepts of word processing, spreadsheets, graphics, database, and electronic communication. (A, CSU)

## 10 RECORDS MANAGEMENT

3 units, 3 lecture hours, 1 lab hour, (Formerly
Business Information Processing 10)
ADVISORY: Typing 25 words per minute. Eligibility for English
125 and 126 or English 153 or ESL 67 and 68 recommended.
Principles and practices of effective records management for manual and database systems; creation, use, maintenance, and disposition of business records. (A, CSU)

## 11 TODAY'S OFFICE

2 units, 2 lecture hours, 1 lab hour, (Formerly
Business General Office 18)
ADVISORY: BT 6 recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Telephone techniques, telecommunications, and general duties of a receptionist including handling mail, scheduling appointments, and making travel arrangements. (A, CSU)

## 13 APPLIED BUSINESS CORRESPONDENCE

2 units, 2 lecture hours, (Formerly Business
Information Processing 62)
PREREQUISITE: BT 112/ENGL 159.
Identifying problems in business correspondence and then rewriting. Constructing effective segments and writing short business letters, memos, and reports that are accurate, complete, and well organized. ( $\mathrm{A}, \mathrm{CSU}$ )

## 14 WINDOWS

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(Repeats = 3), (See also Information Systems 14),
(Formerly Business Information Processing 14)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Hands-on operation of Microsoft Windows. (A, CSU)

## 17 WORD PROCESSING PRACTICUM

2 units, 1 lecture hour, 2 lab hours
PREREQUISITE: BT 2, 7, 8, 28 and 29.
Realistic practice using the more advanced features of word processing programs. (A, CSU)

## 18 SPREADSHEET FUNDAMENTALS

1.5 units, 3 lecture hours, 1 lab hours, ( 9 weeks), (See also IS 18), (Formerly Business Information Processing 18)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Creating and formatting a worksheet, using formulas and functions, and creating graphs; integrating spreadsheets with other programs and the World Wide Web; and creating macros. Additional lab hours in IS 260 or BT 250 available for students to complete homework assignments. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ ), , (Formerly Secretarial
Science 19 and Business General Office 19)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to business \& technology. Learning objectives established specific to business \& technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 RESUME/INTERVIEW

1.5 units, 3 lecture hours, ( 9 weeks), (Formerly

Business General Office 59 and Business General Office 59A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of job-seeking skills. Creating marketable resumes and practicing steps for winning interviews. (A, CSU)

## 21 WORKING RELATIONSHIPS

1.5 units, 3 lecture hours, ( 9 weeks), (Formerly

Business General Office 59B)
PREREQUISITE: None.
Development of human relations competencies in the world of work for greater on-the-job happiness, productivity, and more successful careers. (A, CSU)

## 24 BEGINNING EXCEL

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (See
also Information Systems 24), (Formerly Business
Information Processing 24)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Creating a worksheet, formatting the worksheet, using formulas and functions, and creating graphs. Additional lab hours in IS 260 and BT 250 available for students to complete homework assignments. (A, CSU)

## 25 MICROSOFT OFFICE

3 units, 3 lecture hours, 1 lab hour, (See also
Information Systems 25), (Formerly Business
Information Processing 25)
PREREQUISITE: IS 12 or IS 15.
The major software components of the Microsoft Office suite: Word, Excel, Access, and PowerPoint. Working within the Windows graphical user interface, creating applications and sharing data files to develop solutions that use more than one component of the suite. (A, CSU)

## 26 DATABASE FUNDAMENTALS

1.5 units, 3 lecture hour, 1 lab hour, ( 9 weeks), (See also Information Systems 26), (Formerly Business Information Processing 26)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating database files; entering data; modifying database file structure and designing queries, reports, and forms. Integrating a database with other programs and creating hyperlinks on the Word Wide Web. Additional lab hours in IS 260 or BT 250 available for students to complete homework assignments. (A, CSU)

## 27 MICROSOFT OUTLOOK

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (Repeats = 3)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Using the Microsoft Outlook computer program to manage e-mail, appointments, contacts, and tasks; and to make notes and journal entries. (A, CSU)

## 28 MICROSOFT WORD I

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (Repeats $=3$ ), (Formerly Business Information Processing 28
ADVSORY: BT 6 or equivalent. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic features of Microsoft Word. Designed to equip students with the skills to prepare personal correspondence and reports. (A, CSU)

## 29 MICROSOFT WORD II

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(Repeats = 3), (Formerly Business Information
Processing 29)
ADVISORY: BT 28 or equivalent recommended.
Advanced features of Microsoft Word. Designed for office personnel using Word on the job. (A, CSU)

## 30 MACHINE TRANSCRIPTION

2 units, 1 lecture hour, 2 lab hours, (Formerly
Business Information Processing 11)
ADVISORY: BT 2 or equivalent, BT 12/ENGL 59, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Machine transcription procedures and problems; proofreading, punctuation, and spelling. Courses offered once a year. (A, CSU)

## 43 MEDICAL OFFICE VOCABULARY

. 5 unit, 1 lecture hour, ( 9 weeks)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Develop the ability to pronounce, spell, define, and use medical terms in a medical office. (A, CSU)

106 COMPUTER KEYBOARDING
1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (Formerly Business Information Processing 6 and Business \& Technology 6)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of keyboarding skills by touch using a computer keyboard. (A)

## 107 WORDPERFECT I

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(Repeats $=3$ ), (Formerly Business Information
Processing 21A and Business and Technology 7)
ADVISORY: BT 106 or equivalent and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic features of WordPerfect word processing computer software. (A)

## 108 WORDPERFECT II

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (Repeats = 3), (Formerly Business Information Processing 52A and Business Information Processing 8 and Business and Technology 8)
PREREQUISITE: BT 7 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Advanced features of WordPerfect word processing computer software. (A)

## 112 BUSINESS ENGLISH

2 units, 2 lecture hours, (See also English 59),
(Formerly Business Information Processing 59 and
Business and Technology 12)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review for business use the basic mechanics of English grammar, parts of speech, sentence structure, punctuation, and capitalization. (A)

## 115 REFRESHER MATH

3 units, 3 lecture hours, (Formerly Business General
Office 53 and Business and Technology 15)
PREREQUISITE: None.
Review of math fundamentals involving fractions, decimals, per cents, and measurements with application problems related to office occupations. (A)

## 116 SPELLING AND VOCABULARY BUILDING

2 units, 2 lecture hours, (Formerly BSS 61 and
Business General Office 61 and Business and Technology 16)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Arules approach to spelling; study of homonyms, commonly confused words, word prefixes and suffixes, and some specialized vocabulary. (A)

122 SKILLBUILDING
1 unit, 3 lab hours, (Credit/No Credit), (Open Entry/ Open Exit), (Formerly Business Information Processing 51A and Business and Technology 22)
PREREQUISITE: BT 1 or BT 4 or equivalent.
Techniques and practice for improving keyboard and calculator speed and accuracy in order to meet certificate requirements. (A)

## 131 APPLIED ACCOUNTING

3 units, 3 lecture hours, 2 lab hours, (Formerly
Business General Office 51 and Business and Technology 31)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Practical accounting for a sole proprietorship/partnership involving classification of accounts, relationship of assets, liabilities, and owners equity; posting, accounts receivable, accounts payable, financial reports, the accounting cycle, payroll, and automated accounting. (A)

## 140 LEGAL OFFICE ADMINISTRATION

3 units, 2 lecture hours, 1 lab hour, (See also
Paralegal 56), (Formerly BSS 57A and Business
General Office 56 and Business and Technology 40)
ADVISORY: BT 2 or ability to type 40 words per minute recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Legal vocabulary, ethics, and law office practices and procedures. Preparation of correspondence and client documents. (A)

## 141 LEGAL DOCUMENT PREPARATION

3 units, 2 lecture hours, 1 lab hour, (See also
Paralegal 57), (Formerly BSS 57B and Business
General Office 57 and Business and Technology 41)
ADVISORY: BT 2 or ability to type 40 words per minute recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Additional legal vocabulary, ethics, and legal procedures. Preparation of law blanks and court documents (pleadings). (A)

## 144 MEDICAL ADMINISTRATIVE ASSISTANT

3 units, 2 lecture hours, 2 lab hours, (Formerly BSS
58 and Business General Office 58 and Business and
Technology 44)
ADVISORY: Ability to touch type 35 words per minute and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Procedures in a paramedical facility. Attitudes, behavior, ethics, records, and office duties. Course is offered once a year. (A)

## 145 MEDICAL TRANSCRIPTION I

2 units, 1 lecture hour, 2 lab hours, (Formerly BSS 60A and Business Information Processing 60 and Business and Technology 45)
ADVISORY: HIT 10, BT 30, touch typing at 45 words per minute, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to medical transcription; preparation of medical case histories, reports, and correspondence. (A)

## 146 MEDICAL TRANSCRIPTION II

2 units, 1 lecture hour, 2 lab hours, (Formerly BSS 60B and Business Information Processing 61 and Business and Technology 46)
ADVISORY: BT 45, touch typing at 50 words per minute, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Advanced medical terminology; transcription of advanced medical documents. (A)

## 147 MEDICAL MANAGER

2 units, 1 lecture hour, 2 lab hours, (Formerly
Business Information Processing 63 and Business and Technology 47)
ADVISORY: BT 48 or equivalent work experience and keyboard by touch at a minimum of 35 words per minute.

Familiarization with computerized account management to develop confidence and skill necessary to become a successful user of Medical Manager software. (A)

148 MEDICAL INSURANCE FORMS
3 units, 2 lecture hours, 2 lab hours, (Formerly BSS
64 and Business General Office 64 and Business and Technology 48)
ADVSORY: Ability to touch type 35 words per minute and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Health insurance plans; insurance claims forms used in a medical office, complete with coding. Course is offered once a year. (A)

151 OFFICE PRACTICE
2 units, 6 lab hours, (Repeats = 2), (Formerly Business General Office 4 and Business and Technology 51)
PREREQUISITE: BT 1 or equivalent.
Supervised work in Business Division offices. (A)

152 BUSINESS LEADERSHIP
1-3 units, 1 lecture hour, 3-6 lab hours, (Repeats =
3), (Formerly Business General Office 96 and Business and Technology 52)
PREREQUISITE: None
Business leadership training and experience using student leadership organizations. (A)

250 OFFICE SKILLS LAB
1 unit, 3 lab hours, (Repeats = 3), (Formerly
Business General Office 3 and Business and
Technology 50)
PREREQUISITE: None.
Supervised use of computers. Grade based on hours worked in lab.
270 BUSINESS MATH \& TEN KEY
2 units, 2 lecture hours, 1 lab hour, (Formerly
Business General Office 70 and Business and
Technology 70)
PREREQUISITE: None.
Review of math fundamentals with emphasis on application problems to office occupations. Operation of electronic desktop calculators
and the application of these calculators to business-oriented problems. Development of an employable ten-key skill on the ten-key keyboard.

## 271 BUSINESS GRAMMAR FUNDAMENTALS

2 units, 2 lecture hours, (Formerly Business
Information Processing 71 and Business and
Technology 71)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to or review of basic areas of business English: basic sentence structure, punctuation, capitalization, expression of numbers, spelling; also vocabulary developing, proofreading, and editing.

## 272 OFFICE PROCEDURES

1 unit, 1 lecture hour, (Formerly Business Information Processing 72 and Business and Technology 72)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Telephone techniques and general duties of a receptionist/secretary in a business office.

## 273 FILING

1 unit, 1 lecture hour, (Formerly Business Information Processing 70 and Business and Technology 73)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to classifying, arranging, and storing of records utilizing a manual system.

## 274 INTRODUCTION TO MICROSOFT OUTLOOK

1 unit, 1 lecture hour, (Repeats = 3), (Formerly Business and Technology 74)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Using Microsoft Outlook as an integrated task, scheduling, and communications management software program.

## 275 ACCELERATED LOTUS

1 unit, 1 lecture hour, 1 lab hour, (See also Information Systems 275), (Formerly Business
Information Processing 75 and Business and Technology 75)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating a worksheet, formatting the worksheet, and using formulas and functions.

## 276 ACCELERATED DBASE

1 unit, 1 lecture hour, 1 lab hour, (See also
Information Systems 276), (Formerly Business
Information Processing 76 and Business and
Technology 76)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating databases, entering data, modifying database file structures, designing queries, and printing.

## 277 ACCELERATED EXCEL

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(See also Information Systems 277), (Formerly
Business Information Processing 77 and Business and
Technology 77)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating a spreadsheet, formatting the spreadsheet, using formulas and functions, printing a spreadsheet, and creating graphs.

## 278 ACCELERATED ACCESS

1 unit, 1 lecture hour, 1 lab hour, (See also
Information Systems 278), (Formerly Business
Information Processing 78 and Business and
Technology 78)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating databases, entering data, modifying database file structures, designing queries, and printing using Access.

## CLERICAL TRAINING (CTCTC)

## 370 OFFICE ASSISTANT APPLICATIONS

10 lecture hours, 20 lab hours, ( 20 weeks), ( 600
total hours), (Repeats = 3), (Formerly CTVTC 70)
Records management with database, business math, business English, business communications, 10-key operations, Microsoft Office Professional for Windows 95 (to include Word 97, Excel, Access, and PowerPoint), and telecommunications. Designed for those who seek employment in an office.

## 372 COMPUTERIZED ACCOUNTING

10 lecture hours, 20 lab hours, ( 20 weeks), ( 600 total hours), (Repeats $=3$ ), (Formerly CTVTC 72)
Manual and computerized accounting using an accounting package, Word, Excel, Access, PowerPoint, WordPerfect, Quattro Pro, Paradox, 10-key and typing by touch, business math, Windows 98.

## 374 FUNDAMENTALS OF LITERACY

Minimum 2 laboratory hours per week, (20 weeks), (Formerly CTVTC 74)
Reading comprehension, math, English skills, and basic computer operation.

## 376 GENERAL OFFICE TECHNIQUES

10 lecture hours, 20 lab hours, ( 30 weeks), ( 600
total hours), (Repeats = 3), (Formerly CTVTC 76)
Keyboarding, vocabulary, word processing, telephone techniques, basic math, computer calculator, filing, and basic data entry.

## CABINETMAKING TECHNOLOGY (Cabnt)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to cabinetmaking technology. Learning objectives established specific to cabinetmaking technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 51 BASIC AND ADVANCED CABINETMAKING

10 units, 6 lecture hours, 14 lab hours, (Repeats = 3), (Day), (Formerly Mill Cabinet 51)

PREREQUISITE: None.
Use and care of hand tools, portable electric tools, and woodworking machinery. Project planning, reading prints, cost calculations, and basic cabinet construction. Ordering lumber, cabinet layout, construction problems, and estimating. Cabinetmakingjoints, frame-and-panel construction, casework, and kitchen cabinets. (A, CSU)

## 51A BASIC CABINETMAKING

5 units, 3 lecture hours, 7 lab hours, (Repeats $=3$ ),
(Formerly Mill Cabinet 51A)
PREREQUISITE: None.
Use and care of hand tools, portable electric tools, and woodworking machinery. Project planning, reading prints, cost calculations, and basic cabinet construction. (A, CSU)

## 51B ADVANCED CABINETMAKING

5 units, 3 lecture hours, 7 lab hours, (Repeats = 3), (Formerly Mill Cabinet 51B)
PREREQUISITE: Cabinetmaking 51A.
Ordering lumber, planning, cabinet layout, construction problems, and estimating. Cabinetmaking joints, frame-and-panel construction, casework, and kitchen cabinets. (A, CSU)

## 53 FURNITURE CONSTRUCTION AND WOOD SPECIALTIES

10 units, 6 lecture hours, 14 lab hours, (Repeats =
3), (Day), (Formerly Mill Cabinet 53)

PREREQUISITE: Cabinetmaking 51.
Furniture periods and styles. Design, construction, and finishing of fine furniture. Fine furniture woods and plywood, finishing equipment and finishing procedures. Specialized activities related to the field of cabinetmaking: veneering and inlaying, bending and laminating, plastic laminates, machine-made cane webbing, special finishing techniques, furniture restoration, $32-\mathrm{mm}$ system, custom pieces, and tool maintenance. (A, CSU)

## 53A FURNITURE CONSTRUCTION

5 units, 3 lecture hours, 7 lab hours, (Repeats $=3$ ),
(Formerly Mill Cabinet 53A)
PREREQUISITE: Cabinetmaking 51B.
Furniture periods and styles. Design, construction, and finishing of fine furniture. Fine furniture woods and plywood, finishing equipment and finishing procedures. (A, CSU)

## 53B WOOD SPECIALTIES

5 units, 3 lecture hours, 7 lab hours, (Repeats = 3),
(Formerly Mill Cabinet 53B)
PREREQUISITE: Cabinetmaking 53A.
Specialized activities related to the field of cabinetmaking: veneering and inlaying, bending and laminating, plastic laminates, machinemade webbing, special finishing techniques, furniture restoration, 32mm system, custom pieces, and tool maintenance. (A, CSU)

## 260 WOODWORKING

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3),
(Formerly Cabinetmaking Technology 60)
PREREQUISITE: None.
Skills to build your own furniture, cabinets, or other wood projects. How to safely and skillfully use woodworking hand tools, machinery, and materials.

## 263 ADVANCED CABINETMAKING LAB

5-7 units: 7 units, 1 lecture hour, 19-20 lab hours; 6
units, 1 lecture hour, 16-18 lab hours, 5 units, 1
lecture hour, 13-15 lab hours, (Repeats = 3),
(Formerly Cabinetmaking Technology 63)
PREREQUISITE: Cabinetmaking Technology 53
Woodworking lab for the Cabinetmaking Technology major. Development of skills beyond the Cabinetmaking Technology 53 course.

## CARPENTRY see construction

## CHEMISTRY (СНем)

## 1A GENERAL CHEMISTRY

5 units, 3 lecture hours, 6 lab hours
PREREQUISITE: High school chemistry with laboratory component, or Chemistry 3A or equivalent, and Math 3 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic concepts; atoms, molecules, and ions; formulas and equations; gas laws; electronic structure of atoms; bonding; atomic orbital and molecular orbital theories; solutions; redox reactions; introduction to acids and bases; survey of radioactivity. (CANCHEM2) , (A, CSUGE, UC, I)

## 1B GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS

5 units, 3 lecture hours, 6 lab hours
PREREQUISITE: Chemistry 1A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Homogeneous, heterogeneous, and ionic equilibria; chemical ther modynamics and kinetics; oxidation-reduction and coordination, and nuclear chemistry; inorganic qualitative and quantitative analysis. (A, CSU, UC, I)

## 3A INTRODUCTION TO GENERAL CHEMISTRY

4 units, 3 lecture hours, 3 lab hours, (Replaces
Chemistry 2A-2B)
PREREQUISITE: Math 101 or equivalent. ADVISORY: Math 3 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Composition of matter and physical and chemical changes; fundamental laws and principles; atomic and molecular structure; acidbased theory, redox, and equilibria; qualitative and quantitative theory and techniques. For non-science majors. (CHEM 3A $+3 \mathrm{~B}=\mathrm{CAN} \mathrm{SEQ}$ B) (A, CSU-GE, UC, I).

3B INTRODUCTORY ORGANIC \& BIOLOGICAL CHEMISTRY
3 units, 2 lecture hours, 3 lab hours, (Replaces Chemistry 3)
PREREQUISITE: Chemistry 3A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the basic concepts of organic and biochemistry. Structure and behavior of organic and biological compounds, metabolism, and regulation. Primarily for students in the health-oriented professions. Not a substitute for Chemistry 3A. (CHEM 3A+3B = CANCHEM SEQ B) (A, CSU-GE)

## 8A ELEMENTARY ORGANIC CHEMISTRY

3 units, 3 lecture hours
PREREQUISITE: Chemistry 1Aor 3A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Properties and reactions of aliphatic and aromatic compounds, theories of structure, and reaction mechanisms. For biology majors and students in prehealth sciences, environmental sciences, and programs that do not require a full-year sequence in organic chemistry. Recommended for students requiring a one-semester organic chemistry course. (A, CSU, UC, I)

## 28A ORGANIC CHEMISTRY

3 units, 3 lecture hours
PREREQUISITE: Chemistry 1B. COREQUISITE: Chemistry 29A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Structure, properties, and reactions of the major functional groups. Synthesis, separation, and identification of representative compounds. Infrared, nuclear magnetic resonance, mass, and ultraviolet spectroscopies. First semester of a year course for chemistry majors. Recommended for premedical and other science majors. (A, CSU-GE, UC, I)

## 28B ORGANIC CHEMISTRY

3 units, 3 lecture hours
PREREQUISITE: Chemistry 28A. COREQUISITE: Chemistry 29B. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Continuation of Chem 28A; theory and mechanisms of organic reactions. (A, CSU-GE, UC, I)

## 29A ORGANIC CHEMISTRY LABORATORY

2 units, 6 lab hours
PREREQUISITE: Chemistry 1B. COREQUISITE: Chemistry 28A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Laboratory for Chemistry 28A; theory and mechanisms of organic reactions. (A, CSU-GE, UC, I)

29B ORGANIC CHEMISTRY LABORATORY
2 units, 6 lab hours
PREREQUISITE: Chemistry 29A. COREQUISITE: Chemistry 28B. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Continuation of Chemistry 29A; laboratory for Chemistry 28B; theory and mechanisms of organic reactions. (A, CSU-GE, UC, I)

## CHICANO-LATINO STUDIES (CLS)

formerly cultural studies, laraza studies

## 11 INTRODUCTION TO CHICANO-LATINO STUDIES

3 units, 3 lecture hours, (Formerly Cultural Studies
11)

ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The Chicano-Mexican American community, culture, and heritage in American society. Using an interdisciplinary approach, the focus is on society and culture; social and cultural change; social and cultural conflict. Examines the roots of Chicano-Mexicano culture and heritage from the pre-Columbian Indian civilizations to the present. (A, CSU-GE, UC, I)

## 12 MEXICAN AMERICAN HISTORY

3 units, 3 lecture hours, (Formerly Cultural Studies
12)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A survey of Chicano history from the early colonization and settlement of northern New Spain (nowthe American Southwest) to the 1990s. (A, CSU-GE, UC, I)

## 13 POLITICS AND THE CHICANO-LATINO COMMUNITY

3 units, 3 lecture hours, (Formerly Cultural Studies 13)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Chicano-Latino political issues, interaction with governmental and political structures, legislation, political parties, pressure groups, political socialization, and political change. The Chicano Movement. Chicano-Latino political organizations. (A, CSU, UC)

## 14 SOCIOLOGY OF THE MEXICAN AMERICAN COMMUNITY

3 units, 3 lecture hours, (Formerly Cultural Studies
14), (See also Sociology 14)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Sociological examination of the Chicano in American society: family, religious, educational, economic, and political social institutions. Social problems, social issues, and social change. (A, CSU, UC)

## 17 BEGINNING MEXICAN FOLKLORICO DANCE

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3),
(See also Dance 17), (Formerly Cultural Studies 17)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History and origin of Mexican dance. Mexican songs and folktales and how they are interpreted through Mexican dance. Dances practiced and performed at the beginning level. (A, CSU-GE, UC)

## 18 LATIN JAZZ

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3), (Formerly Cultural Studies 18), (See also Music 48)
ADVISORY: Advanced high school band, orchestra, or jazz en-
semble experience or the equivalent performance skills as determined by audition recommended.

Study and performance of Latin-jazz or salsa and Afro-Cuban music. Participation in concerts and jazz festivals required. (A, CSU, UC)

20 CHICANO ART
3 units, 3 lecture hours, (Formerly Cultural Studies
20)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Mexican, Chicano, and Latino art from the historical to the contemporary. Contemporary art forms and their ancestral cultural base. Survey of Mexican, Chicano and Latino artistic expressions. (A, CSUGE, UC, I)

## 21 CHICANO LITERATURE

3 units, 3 lecture hours, (Spring), (Formerly Cultural Studies 21)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Survey of Chicano-Latino classic and popular literature. Reading and critical analysis of literary works of Chicano-Latino cultural values and themes as expressed in essays, novels, poetry, and plays. (A, CSU-GE, UC, I)

## 22 PRE-COLUMBIAN ART

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A historical survey of the art of Mesoamerican and Andean ancient cultures. The art and architecture of the Olmec, Mayan, Toltec,

Aztec, Moche, Nazca, Inca, and other ancient civilizations of the new World. (A, CSU, UC)

## 24 LA CHICANA

3 units, 3 lecture hours, (Formerly Cultural Studies
24), (See also Women's Studies 24)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A sociological analysis of the Mexican American female in contemporary society. Special emphasis on her role in the family, church, education, economics, and politics. (A, CSU, UC)

## 27 ADVANCED MEXICAN FOLKLORICO DANCE

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Cultural Studies 27), (See also Dance 27)
PREREQUISITE: Dance/Chicano-Latino Studies 17 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History and origin of Mexican dance. Mexican songs and folktales and how they are interpreted through Mexican dance. Dances practiced at the advanced level. (A, CSU-GE, UC)

## 28 ANCIENT MEXICO: AN INTRODUCTION TO

 MESOAMERICAN CIVILIZATIONS AND CULTURES3 units, 3 lecture hours, (Formerly Cultural Studies 28), (See also Anthropology 28)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Asurvey of history, geography, socio-political structures, religious systems, and cultural achievements of Mesoamerican civilizations such as the Olmec, Zapotec, Teotihuacan, Mayan, Toltec, and Aztec/Mexican. (A, CSU, UC)

## 29 HISTORY OF MEXICO, COLONIAL TO CONTEMPORARY PERIOD

3 units, 3 lecture hours, (Formerly Cultural Studies 29), (See also History 29)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A social, economic, and political survey of Mexican history from the colonial period (1521) to contemporary period (1990s). (A, CSU, UC)

## 30 THE MEXICAN AMERICAN FAMILY: SOCIAL AND PSYCHOLOGICAL PERSPECTIVES

3 units, 3 lecture hours, (Formerly Cultural Studies
30)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Chicano social and psychological perspectives. Analysis of the dynamics of personality development and its relationship with the Chicano and Mexican family. Emphasis on culture, socialization, personality, and mental health. (A, CSU, UC)

## 33 COMMUNITY LEADERSHIP

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Personal development, community and civic development, public policy development and analysis, and leadership theory. A working understanding of international, national, state and local issues impacting the political, economic, and social fabric of the Latino community. (A, CSU)

## CHILD DEVELOPMENT (CHDEV)

## 2 INTRODUCTION TO EARLY CHILDHOOD EDUCATION

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Major influences on and current trends in early care and education. Presents overall perspective on early care and education, its importance, types of programs, requirements and career opportunities in the field of Early Childhood Education. Introduction to the development of a planned program for children birth through age eight. Field observations at sites designated by the instructor. (A, CSU)

## 3 CREATIVE EXPERIENCES FOR YOUNG CHILDREN

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Verification of freedom from tuberculosis, and proof of immunization against measles, mumps and rubella, twice, if born after 1957 recommended. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68.

Curriculum planning for early care and education programs; explores creative experiences in art, music, dramatics, literature, language, science and mathematics appropriate for preschool age children. (A, CSU)

## 4 THE EARLY CHILDHOOD CLASSROOM: ENVIRONMENT,

 EQUIPMENT AND MATERIALS2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Design of the classroom environment, development of materials and equipment to promote learning in the young child; construction of instructional materials to complement the preschool curriculum. (A, CSU)

## 5 PARENT EDUCATION

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Skills needed for effective parenting; the developmental needs of children; effective communication skills; effective use of discipline; and effective control of the environment. (A, CSU)

## 6 INFANT-CHILD HEALTH AND SAFETY

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Health and safety as it relates to children in early care and education programs. Prevention, detection and management of communicable disease; infant and child CPR and first aid; safety and accident prevention. (A, CSU)

## 7 INFANT/TODDLER DEVELOPMENT AND CARE

3 units, 2 lecture hours, 3 lab hours, (Formerly Child Development 38)
PREREQUISITE: Verification of freedom from tuberculosis, and proof of immunization against measles, mumps and rubella, twice, if born after 1957. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Infant development from birth to three years. Meeting individual needs in family and group care settings. Role of the caregiver, the effects of the environment; routines as infant/toddler curriculum. Concepts of primary care, continuity of care and group size in the context of quality care. Relating to families and recognizing cultural differences/similarities. (A, CSU)

## 7A INFANT/TODDLER DEVELOPMENT AND CAREGIVING

3 units, 3 lecture hours
PREREQUISITE: Child Development 7. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Infant/toddler development and caregiving as it relates to program design. Exploration of brain development and discoveries in infancy. Issues related to working with families effectively and cultural sensitivity in the early care and education setting. (A, CSU)

## 8 PROGRAMS FOR SCHOOL-AGE CHILD CARE

3 units, 3 lecture hours
PREREQUISITE: Child Development 8A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A continuation and expansion of principles introduced in Child Development 8Awith a focus on overall program design for school-age child care. (A, CSU)

## 8A SCH00L AGE CHILD: GROWTH AND DEVELOPMENT

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Growth and development from age six to fourteen years. School age child care settings; issues facing school-age children in contemporary society; strategies for working effectively with children in out-ofschool care settings. (A, CSU)

## 9 MUSIC AND MOVEMENT EXPERIENCES FOR YOUNG CHILDREN

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic skills, methods and theory in music and movement activities for the young child. Emphasis on integrating music and movement into the early childhood classroom and developing a repertoire of music and movement materials. (A, CSU)

## 10 SCIENCE AND MATH EXPERIENCES FOR YOUNG CHILDREN

2 units, 2 lecture hours, (Formerly Child Development 27)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The discovery approach to learning in the curriculum sciences and math. Designing basic science and math units and integrating new ideas for everyday science and math experiences for early care and education programs. (A, CSU)

## 11 THE YOUNG CHILD WITH SPECIAL NEEDS

3 units, 3 lecture hours
PREREQUISITE: Child Development 39 or 38. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Issues surrounding infants and preschoolers with special needs. The roles of early intervention and inclusion. Adjustment within the family; community resources; teaching strategies for including preschoolers with disabilities. (A, CSU)

## 12 CHILD ABUSE

2 units, 2 lecture hours, (See also Psychology 12)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Issues related to abused, battered, and neglected children. Characteristics of abusers. Identification, prevention, and treatment of abused children and of abusers. (A, CSU)

## 13 CHILD SEXUAL MOLESTATION

2 units, 2 lecture hours, (See also Psychology 13)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Issues related to child sexual molestation and pornography. Characteristics of intra-familial sexual abusers, pedophiles, and adolescent molesters. Reporting laws and the legal process. Identification, prevention and treatment of sexually abused children and of molesters. (A, CSU)

## 14 YOUTH SUICIDE

1 unit, 1 lecture hour, (See also Psychology 14)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An in-depth look at the causes of and increase in youth suicide. Clues to suicidal intention motivation. Facts and myths pertaining to suicide. Effect of suicide on the family and community. Identification, prevention and intervention of youth suicide. (A, CSU)

## 15 DIVERSITY ISSUES IN EARLY CARE AND EDUCATION PROGRAMS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Explores cultural and language issues that relate to the education of diverse populations of children, and acquaints students with non-bias, culturally responsive teaching strategies and curriculum suitable for young children. (A, CSU)

## 18 CHILD DEVELOPMENT INTERNSHIP

1-4 units, 1 lecture hour, 4-16 lab hours, (Repeats = 3)

PREREQUISITE: Verification of freedom from tuberculosis and proof of immunization against measles, mumps and rubella, twice, if born after 1957. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Supervised field experience of employment in an approved early childhood classroom from 4 hours to 16 hours per week. Internship/ field work experience may be applied toward the 50 days of experience mandated by the State licensing for preschool teachers or towards the 175 days of experience required for application for a California Child Development Permit. 1 unit = 4 hours lab, 2 units = 8 hours lab, 3 units $=12$ hours lab, 4 units $=16$ hours lab. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to child development. Learning objectives established specific to child development. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

30 CHILD, FAMILY, AND COMMUNITY
3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The socialization of the child within the family and community, including the effects of divorce, single parenthood, rapid cultural changes, child care, and the media. Issues addressed include working with culturally diverse families; parent-school relations; children with special needs, child abuse prevention; and stress in young children's lives. (A, CSU)

## 31 THE CHILD IN SOCIETY: A SOCIAL PROBLEMS

 APPROACH3 units, 3 lecture hours, (See also Sociology 31)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A social problems approach to the child in society: socialization, the dysfunctional family, abuse, deprivation, disabilities, drugs, delinquency and special needs. (A, CSU)

## 34 CREATIVE COOKING WITH CHILDREN

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Cooking experiences for use with preschool and primary age children; development of cognitive and affective skills through cooking. (A, CSU)

## 37A EARLY CHILDHOOD PROGRAMS AND PRACTICES

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Child Development 3 and Child Development 39/ Psychology 39 or 50 . Verification of freedom from tuberculosis, and proof of immunization against measles, mumps, and rubella, twice, if born after 1957 recommended. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Planning experiences which encourage optimal physical, intellectual, social and emotional growth of the preschool child. Supervised practical experience in the Fresno City College Child DevelopmentCenter or in early childhood programs with FCC mentor teachers. (A, CSU)

## 37B EARLY CHILDHOOD PROGRAMS AND PRACTICES

3 units, 2 lecture hours, 6 lab hours
PREREQUISITE: Child Development 37A. Verification of freedom from tuberculosis and proof of immunization against measles, mumps and rubella, twice, if born after 1957. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The principles and practices of early care and education programs. Emphasis on the project approach to curriculum planning; application of theory and teaching techniques in the Fresno City College Child Development Center or in an early childhood program with a mentor teacher. (A, CSU)

## 38 LIFESPAN DEVELOPMENT

3 units, 3 lecture hours (See also Psychology 38)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic theories, research concepts and principles of physical, cognitive and psychosocial development at each major stage of life from conception to old age. All major topics of human development (e.g., human behavior, sexuality, nutrition, health, stress, key relationships of mankind to the social and physical environment, and implication of death and dying) presented in an integrated manner. (A, CSU-GE, UC, I)

## 39 CHILD DEVELOPMENT

3 units, 3 lecture hours, 1 lab hour, (See also Psychology 39)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Verification of freedom from tuberculosis, and proof of immunization against measles, mumps and rubella, twice, if born after 1957 recommended.

Basic theories, research, concepts and principles of physical, cognitive and psychosocial development at each major stage of life from conception to adolescence. (CAN FCS 14) (A, CSU-GE, UC, I)

## 40A ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS

3 units, 3 lecture hours, (Formerly Child Development 36A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Twelve units of Child Development (Child Development 3, 30, 37A or 39) or one year of Early Childhood Education teaching experience strongly recommended.

Principles and practices in organization, management and supervision of various kinds of early care and childhood programs. Program planning, organization, budgeting, personnel policy, record-keeping, legal requirements and relationships with community, parents and regulatory agencies. (A, CSU)

## 40B ADVANCED ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS

3 units, 3 lecture hours, (Formerly Child Development 36B)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Procedures for program development. Preparation of staff schedules; orientation and in-service programs; staff handbooks; parent handbooks and parent in-services; marketing strategies; business plans; financial reports; evaluation and accreditation. (A, CSU)

## 42 CHILD NUTRITION

3 units, 3 lecture hours, (See also Food and Nutrition 42)

ADVSORY: Food and Nutrition 40 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Nutritional requirements of infants and children from conception through adolescence. Nutritional needs of pregnant and lactating women. Feeding infants and children for optimum physical and mental development. Child and maternal nutrition programs. Social and cultural influences affecting child and maternal nutrition. (A, CSU)

## 43 CHILDREN'S LITERATURE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Selection and presentation of literature for the child from infancy to eight years. Storytelling, emergent literacy and awareness regarding multicultural and nonsexist perspectives. Emphasis on supporting the child's emotional, social and intellectual growth through experience with books. (A, CSU)

## 44 HIGH SCOPE EDUCATIONAL APPROACH

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Principles of and techniques for implementation of this curriculum model. Philosophy and goals, room arrangement, daily routine, plan-do-reviewstrategies, key experiences, curriculum planning, child assessment and team planning. (A, CSU)

## 45 ADULT SUPERVISION IN EARLY CHILDHOOD EDUCATION CLASSROOMS <br> 2 units, 2 lecture hours <br> ADVISORY: Completion of 12 units of Child Development (recom-

 mended CHDEV 39 or 50, CHDEV 30, CHDEV 3, CHDEV 37A) plus one year teaching experience in an early care and education program recommended.Methods and principles of supervising student teachers and other
adults in early care and education classrooms. Emphasis on the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of culturally diverse children, parents, and other staff. (A, CSU)

## 46 COMPUTERS IN EARLY CHILDHOOD EDUCATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the basic technology and applications of the computer in Early Childhood Education. Includes computer-assisted instruction (CAI) for program management in areas of record keeping, inventory, newsletters, state reports, mailing lists, and budgeting. CAI will allow students to explore applications for children to enhance learning, creativity, problem solving, art concepts, literature, and language. (A, CSU)

## 47A EMERGENT LITERACY A

1 unit, 2 lecture hours, (8 weeks)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Research-based principles and practices for providing children birth through age five a strong foundation in early reading and writing within a developmentally-appropriate approach. (A, CSU)

## 47B EMERGENT LITERACY B

1 unit, 2 lecture hours, (8 weeks)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Research-based strategies for ECE teachers to use to provide developmentally appropriate literacy experiences for children birth to five (A. CSU)

## 47C EMERGENT LITERACY C

1 unit, 2 lecture hours, (8 weeks)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Research-based strategies for ECE teachers to use to provide developmentally appropriate literacy experiences for children birth to five. (A, CSU)

## 48 CHILDREN WITH CHALLENGING BEHAVIORS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Effective strategies for working with children with challenging behaviors in early childhood environments; guidelines for discussion of problem behaviors; emphasis on teacher's role in supporting children through emotional difficulties; needs of children at risk and children with ADHD. (A, CSU)

## 150 BASIC CHILD GROWTH AND DEVELOPMENT

3 units, 3 lecture hours, (Formerly Child Development 50)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Principles of child growth and development; stages of physical, emotional, social and mental growth from conception through eleven years. ( Not open to students with credit in Child Development/Psychology 39.) (A)

## 151 INTRODUCTION TO FAMILY CHILD CARE

1 unit, 1 lecture hour, (Formerly Child Development 51)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

One of two one-unit courses designed to meet the training needs of family child care providers. Basic information on managing a family child care home; licensing requirements, developing policies for parents, recordkeeping, recruiting children, arranging the home for child care. (A)

152 QUALITY PROGRAM IN FAMILY CHILD CARE
1 unit, 1 lecture hour, (Formerly Child Development
52)

ADVISORY: Child Development 51 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Program planning for the family home child care setting. Use of space for play and learning, providing care for children of different ages, curriculum, guidance techniques, provider- parent relationships. (A)

## 163 EFFECTIVE PARENTING (EMPHASIS: CALWORKS

 STUDENTS)1 unit, 1 lecture hour, (See also Human Services
163), (Formerly Child Development 63)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Selected parenting topics for CalWORKs students: feelings, cooperation, alternatives to punishment, encouraging autonomy, using praise, sibling conflict, and behavior management. Support and discussion. (A)

165A TOPICS IN CHILD DEVELOPMENT: CURRICULUM
1-3 units, 1-3 lecture hours, (Repeats = 3), (Formerly Child Development 65A)
Examination of new topics and trends in curriculum for early childhood programs. (A)

165B TOPICS IN CHILD DEVELOPMENT: FAMILY AND COMMUNITY
1-3 units, 1-3 lecture hours, (Repeats $=3$ ), (Formerly Child Development 65B)
Examination of contemporary trends and issues in family life that affect home-school-community relations. (A)

165C TOPICS IN CHILD DEVELOPMENT PROGRAM ADMINISTRATION
1-3 units, 1-3 lecture hours, (Repeats $=3$ ), (Formerly
Child Development 65C)
Current issues in early childhood program administration and supervision. (A)

## 261 INTRODUCTION TO FOSTER PARENTING

1 unit, 1 lecture hour, (Repeats = 3), (See also
Human Services 261), (Formerly Child Development
61)

PREREQUISITE: None.
The process of foster home licensing. Parenting skills specific to the needs of foster children. Agency resources of and the right of foster parents, biological parents and foster child. (Not applicable to the AS degree.)

## 262 INDEPENDENT LIVING SKILLS

1 unit, 1 lecture hour, (See also Human Services
262), (Formerly Child Development 62)

PREREQUISITE: None.
Child development, parent-child communication, choices and consequences and skill acquisition necessary for successful independent living by teens preparing to leave foster care and the foster parents who care for adolescents. Designed primarily for the person interested in becoming a foster parent.

## CHINESE see foreign languages

CISCO SEe electrical systems technology (est)

## COMPUTER AIDED DRAFTING AND DESIGN

## (CADD) SEE ALSO DRAFTING

## 14 INTRODUCTION TO COMPUTER AIDED DRAFTING

3 units, 2 lecture hours, 3 lab hours, (Formerly Drafting 42 and 32)
Introduction to the use of the computer as a drafting tool for the architectural, engineering, and mechanical industries. (A, CSU)

24 ADVANCED COMPUTER AIDED DRAFTING AND DESIGN 3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ), (Formerly Drafting 22)
PREREQUISITE: Drafting 12 and CADD 14.
Use of the computer as a drafting tool to create advanced mechanical drawings. (A, CSU)

34 SOLID MODELING AND DESIGN
3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ), (Formerly Drafting 20)
PREREQUISITE: Drafting 12 and CADD 14.
Computer generated three dimensional solid models, assemblies, detailed drawings and renderings of mechanical parts. (A, CSU)

## 40 CIVIL DRAFTING APPLICATIONS

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Drafting 30)
PREREQUISITE: Drafting 12 and CADD 14.
Traverse calculation, preparation of plat maps, record of surveys, and other contour plotting. (A, CSU)

## COMPUTER AIDED MANUFACTURING (cam)

10 COMPUTER AIDED DESIGN AND COMPUTER AIDED MANUFACTURING
3 units, 2 lecture hours, 3 lab hours, (Repeats $=1$ ), (Formerly Drafting and Computer Aided Drafting and Design 44)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Application of computers and software in drafting and design, CAD hardware, CAMintegration and networking, and CNCrouting machines. (A, CSU)

## 20 CNC MILL PROGRAMMING \& OPERATION II

6 units, 4 lecture hours, 6 lab hours, (Repeats $=3$ )
PREREQUISITE: CAM 10. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Intermediate computer aided manufacturing software for machine tool programming; generation of machine G- and M-code; basic set up of Computer Numerical Control (CNC) machines; and shop safety and shop equipment. (A, CSU)

30 CNC MILL PROGRAMMING \& OPERATION III
6 units, 4 lecture hours, 6 lab hours, (Repeats $=3$ )
PREREQUISITE: CAM20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Three dimensional solid design with MasterCAM software on PCbased computers. Three and five-axis machine tool programming, generation of G- and M-Codes, advance set up of Computer Numerical Control machines and shop safety. (A, CSU)

40 CNC LATHE PROGRAMMING \& OPERATION
3 units, 2 lecture hours, 3 lab hours, (Repeats = 3)
PREREQUISITE: CAM10. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

An introduction to the operation and programming of a CNClathe. Programming with MasterCAM software. Tool registers for offsets, nose radius compensation, vector direction and machine safety. (A, CSU)

50 SPECIAL PROJECTS AND PORTFOLIO PRESENTATIONS
3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
PREREQUISITE: CAM20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 or Applied Technology 130 recommended.

Special projects and portfolio development for the workforce. Research and presentation of an original design part. (A, CSU)

## COMPUTER INFORMATION SYSTEMS

SEE INFORMATION SYSTEMS (IS)

## COMPUTER SCIENCE (csci)

10 PROGRAMMING IN THE BASIC LANGUAGE
1 unit, 1 lecture hour, 3 lab hours, ( 9 weeks), (Formerly Computer Science 14)
PREREQUISITE: Math 101 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Programming techniques using the programming language BASIC; topics include input/output, computer arithmetic, branching, looping, sub-routines, and graphics. No prior experience required. (A, CSU, UC)

## 20 PROGRAMMING IN THE FORTRAN LANGUAGE

3 units, 2 lecture hours, 2 lab hours, (Formerly
Computer Science 16)
PREREQUISITE: Math 3 or equivalent. COREQUISITE: Math 4A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to programming in FORTRAN with emphasis on program design, debugging, testing, and documentation; elementary applications and structured programming for algorithm development. (A, CSU-GE, UC)

## 40 PROGRAMMING CONCEPTS \& METHODOLOGY I

4 units, 3 lecture hours, 2 lab hours, (Formerly Math 30A and Computer Science 30A)
PREREQUISITE: Math 3 or equivalent. COREQUISITE: Math 4A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to problem solving, algorithm development, and procedural and data abstraction using the C language; program design, coding, debugging, testing, and documentation. (A, CSU, UC)

41 PROGRAMMING CONCEPTS \& METHODOLOGY II
4 units, 3 lecture hours, 2 lab hours, (Formerly Math
30B and Computer Science 30B)
PREREQUISITE: Computer Science 40 and Math 4A, or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Programming methodology, program correctness, and review of data types; data structures; linear and nonlinear structures, lists, stacks, queues, trees, and files; implementation of data structures; recursion, searching, and sorting. C++ language is used. (A, CSU, UC)

## 261 INTERNET AND COMPUTER SKILLS LABORATORY

.2-1 unit, 3-6 lab hours, (16 weeks), (Credit/No
Credit), (Repeats $=3$ )
PREREQUISITE: None.
Supervised use of microcomputers and the Internet. Reinforcement of concepts from classroom studies and development of problem solving abilities on an independent basis. Grade based on hours worked in lab:
(a) .2 units for minimum of 10 hours;
(b) .4 units for minimum of 19 hours;
(c) .6 units for minimum of 29 hours;
(d) .8 units for minimum of 39 hours;
(e) 1 unit for minimum of 48 hours.

## CONSTRUCTION - CARPENTRY (CONs)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to construction. Learning objectives established specific to construction. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 50A BASIC RESIDENTIAL CONSTRUCTION

3 units, 2 lecture hours, 3 lab hours, (Formerly Construction 50)
ADVISORY: Applied Technology 130 or Math 101 and eligibility for English 125 an 126 or English 153 or ESL 67 and 68 recommended.

General introductory and basic skills in residential construction. Emphasis on hand and power tools, foundations, framing, and materials. (A, CSU)

## 50B BASIC RESIDENTIAL CONSTRUCTION

3 units, 2 lecture hours, 3 lab hours
ADVISORY: Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

General introductory and basic skills in residential construction. Emphasis on hand and power tools, interior and exterior finish, finish carpentry, roofing, and plumbing. (A, CSU)

## 51 RESIDENTIAL CONSTRUCTION: FOUNDATIONS AND FRAMING

10 units, 4 lecture hours, 16 lab hours, (Repeats =
3), (Formerly Construction 51/52)

ADVISORY: Construction 50Aand Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Hands-on construction of a residential house including construction of foundation forms, installation of rough plumbing, placement and finishing of concrete, lay out and construction of wall framing, placement of roof trusses and construction of associated roof framing, and the application of roofing material. (A, CSU)

51A RESIDENTIAL CONSTRUCTION: FOUNDATIONS
5 units, 2 lecture hours, 8 lab hours, (Repeats $=3$ ), ( 9 weeks), (Formerly Construction 51)
ADVISORY: Construction 50Aand Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Site preparation, location of building lines, construction of forms for a slab on grade, and material calculation. Waste plumbing lay out and construction. Hands- on placing and finishing of a slab on grade. (A, CSU)

## 51B RESIDENTIAL CONSTRUCTION-FRAMING

5 units, 2 lecture hours, 8 lab hours, (Repeats $=3$ ), (9 weeks), (Formerly Construction 52)
ADVISORY: Construction 50A and Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Lay out and construction of wall framing, lay out and installation of roof trusses, construction of all associated hand stack roof framing, and application of the roof sheathing and roofing on a residential house. (A, CSU)

53 RESIDENTIAL CONSTRUCTION: EXTERIOR AND INTERIOR FINISH
10 units, 4 lecture hours, 16 lab hours, (Repeats = 3), (Formerly Construction 53/54)

ADVISORY: Construction 50Aand Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Hands-on construction of a residential house, including window and door installation, stucco lathing, siding installation, drywall hanging and finishing, cabinet and hardware installation, finish carpentry, interior and exterior painting, fencing, and concrete flat work including driveways and walks. (A, CSU)

## 53A RESIDENTIAL CONSTRUCTION: EXTERIOR FINISH

5 units, 2 lecture hours, 8 lab hours, (Repeats = 3),
( 9 weeks), (Formerly Construction 53)
ADVISORY: Construction 50Aand Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Installation of windows and exterior doors, installation of exterior siding, stucco lathing, concrete flat work, and painting on a residential home on a building site. (A, CSU)

53B RESIDENTIAL CONSTRUCTION: INTERIOR FINISH
5 units, 2 lecture hours, 8 lab hours, (Repeats = 3), ( 9 weeks), (Formerly Construction 54)
ADVISORY: Construction 50Aand Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Drywall hanging and finishing, interior door hanging, cabinet and hardware installation, finish carpentry, and interior painting. (A, CSU)

55 ROOF FRAMING SYSTEMS
3 units, 1 lecture hour, 5 lab hours, (Repeats = 3)
ADVISORY: Construction 50Aand Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to conventional roof framing with common rafters, hip and valley rafters, jack rafters, lay out of rafter locations, roof trusses, roof sheathing, and stairs. (A, CSU)

## 56 RESIDENTIAL PLUMBING

3 units, 2 lecture hours, 3 lab hours, (Repeats $=1$ )
ADVISORY: Construction 50Aand Applied Technology 130 or Math 101 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to residential plumbing; layout and installation of a typical residential plumbing system. (A, CSU)

## 57 CONSTRUCTION SURVEYING

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3), (Formerly Bldg Tech 4)
ADVISORY: Math 4A or Drafting 160 and eligibility for English 125 or 126 or English 153 or ESL 67 and 68.

Operation of common surveying equipment, site layout, building layout, grades and benchmarks, and setting line and grade for columns and beams. (A, CSU)

## 175 RESIDENTIAL WIRING

4 units, 3 lecture hours, 4 lab hours, (Repeats $=3$ ), (See also Electrical Systems Technology 175), (Formerly Construction 75)
PREREQUISITE: None.
Introduction, technique and installation of the electrical wiring system for a single family residence. Students will install the actual wiring system for the Fresno City College construction department's single family residence at an off-campus location. Emphasis on current wiring practices and electrical codes. (A)

196 BUILDING CONSTRUCTION INSPECTION
3 units, 3 lecture hours, (Repeats = 3), (Formerly
Bldg Tech 96A-96B and Construction 96)
ADVISORY: Background and experience in construction or related trade areas recommended.

National codes, blueprints and specifications, materials, site development and location of project and human relations. (A)

## BUILDING MAINTENANCE (вMстс)

## 370 BUILDING MAINTENANCE

10 lecture hours, 20 laboratory hours, ( 20 weeks), (600 total hours), (Repeats $=3$ ), (Formerly BMVTC 70)

Drywall repair, carpentry, hardware, plumbing, masonry, painting and electrical.

## CRIMINOLOGY (CRIM)

FORMERLY ADMINISTRATION OF JUSTICE

## 1 INTRODUCTION TO CRIMINOLOGY

3 units, 3 lecture hours, (Formerly AJ 1)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The history and philosophy of the criminal justice systems; role expectations and their interrelationships; theories of crime, punishment, and rehabilitation; and ethics, education, and training for professionalism. Review criminological research and theory. Analyze patterns and types of criminal behavior. Explore cross cultural dynamics of criminality in other countries. (CAN AJ 2) (A, CSU, UC)

## 3 LEGAL ASPECTS OF EVIDENCE

3 units, 3 lecture hours, (Formerly AJ 3)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History, philosophy, kinds, degrees, and rules of evidence and its admissibility; judicial decisions. (CAN AJ 6) (A, CSU)

## 4 PRINCIPLES AND PROCEDURES OF THE JUSTICE

 SYSTEM3 units, 3 lecture hours, (Formerly AJ 4)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Procedural roles and responsibilities of the criminal justice system agencies with emphasis on legal directives to law enforcement agencies, based on constitutional and judicial interpretation. (A, CSU)

## 5 COMMUNITY RELATIONS

3 units, 3 lecture hours, (Formerly AJ 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The professional image of the criminal justice system and its positive relationship with the public. (A, CSU, UC)

## 6 CONCEPTS OF CRIMINAL LAW

3 units, 3 lecture hours, (Formerly AJ 6)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The historical development, philosophy and practice of law and constitutional provisions; definitions and classifications of crime; le gal research, study of case law, methodology, and concepts of law as a social force; and the concept of law on the correctional component of the justice system. (CANAJ 4) (A, CSU)

## 7 CONCEPTS OF ENFORCEMENT SERVICES

3 units, 3 lecture hours, (Formerly AJ 7)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Exploration of theories, philosophies, and concepts related to the role expectations of the line enforcement officer. Emphasis is placed upon the patrol, traffic, and public service responsibilities and their relationship to the administration of justice system. Physical as well as psychological officer survival will be stressed. (A, CSU)

## 8 CRIMINAL INVESTIGATION

3 units, 3 lecture hours, (Formerly AJ 8)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Criminal investigation as practiced in the administration of justice system. Preliminary and follow-up investigations; case documentation and preparation for court presentation. (CAN AJ 8) (A, CSU)

## 11 JUVENILE DELINQUENCY

3 units, 3 lecture hours, (Formerly AJ 11)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Theories of cause, prevention, and treatment of juvenile delinquency; practical relationships among theory, law, policy, and existing practice in delinquency; juvenile law, juvenile procedure, rights and responsibilities of juveniles; case studies. (A, CSU)

## 12 POLICE REPORT WRITING

3 units, 3 lecture hours. (Formerly AJ 12)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fundamentals of gathering and organizing data. Effective preparation of reports required by law within the criminal justice system and testifying in court. (A, CSU)

## 13 THE CONSTITUTION AND YOUR INDIVIDUAL RIGHTS

3 units, 3 lecture hours, (Formerly AJ 13)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Critical study, analysis, and evaluation of landmark cases of the United States Supreme Court, and the logic and fallacies of the interpretive reasoning processes utilized by the justices in reaching their decisions. Emphasis on the protection of individual rights and privileges contained in the Bill of Rights and an understanding of the utility and value in all aspects of our lives of recognizing and using both formal and informal critical thinking processes. (A, CSU-GE, UC)

## 15 INTRODUCTION TO POLICE ETHICS

3 units, 3 lecture hours, (Formerly AJ 15)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The philosophical and theoretical issues relating to frequent ethical violations throughout the criminal justice system. Structured to be a primer on morality, ethics, and human behavior. (A, CSU)

## 16 INTRODUCTION TO VICTIMOLOGY

3 units, 3 lecture hours, (Formerly AJ 16)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Philosophical, theoretical issues and analysis of the most recent research findings and their implications in relationship to victims of street crimes. Controversies surrounding victims and their relations with offenders, media, agencies, etc. (A, CSU)

## 18 CRIMINAL PERSONALITIES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Focus on the physiological, cognitive, and social factors involved in crime and the development of criminal personalities. An examination of an offender's expectations, rationalizations, and justifications for his/her criminal behavior. Emphasis on modern concepts of criminal personalities including sociopaths, psychopaths, and criminal psychopaths. The role of corrections at the federal, state, and local levels. Treatment classifications and management of the criminal personality, including sociopaths and psychopaths, within institutional settings. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to criminology. Learning objectives established specific to criminology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 INTRODUCTION TO CORRECTIONS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed to provide the student with an overview of the history and trends of adult and juvenile corrections including probation and parole. Focus on the legal issues, specific laws, and general operation of correctional institutions. The relationship between corrections and other components of the judicial system will also be examined. (A, CSU)

## 21 CORRECTIONAL REPORT WRITING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the practical aspects of gathering, organizing, and preparing written reports for correctional activities on local, state, and federal levels. Techniques of communicating facts, information, and ideas effectively in a simple, clear, and logical manner for various types of criminal justice systems reports, letters, memoranda, directives, and administrative reports. Students will gain practical experience in note taking, report writing, and presenting testimony in court. (A, CSU)

## 23 CORRECTIONAL INTERVIEWING AND COUNSELING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An overview of the techniques in counseling and interviewing available to practitioners in corrections. The use of appropriate techniques and theories in confidence building which may be used by the correctional employee in client interviews and counseling. For students planning to enter or already employed within the correctional science field. (A, CSU)

## 24 CONTROL AND SUPERVISION IN CORRECTIONS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An overview of supervision of inmates in local, state, and federal correctional institutions. Issues of control in a continuum from institutional daily living through crisis situations. Emphasis on the role played by the offender and the correctional worker. Inmate subculture, violence, and the officers in a hostile prison environment. The causes and effects of abusive tactics. (A, CSU)

## 25 LEGAL ASPECTS OF CORRECTIONS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The historical framework, concepts and precedents that guide cor rectional practice. The corrections environment, the civil rights of prisoners, and the responsibilities and liabilities of corrections officials. (A, CSU)

## 36 GANGS AND CORRECTIONS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Specialized knowledge relating to the correctional impact of gangs. The history of gangs and the issues associated with the development of gangs. Focus on the emergence of prison gangs following a series of changes within correctional systems. Review of the types of gangs and the criminal activities associated with the gang. Special emphasis on the prison gang and correctional issues including identification, intake, classification, communication, and treads. Psychological and sociological dynamics are explored. Institutional management and future trends. (A, CSU)

## CULTURAL STUDIES (cults)

## 7 INTRODUCTION TO BRITISH CULTURE

3 units, 3 lecture hours, (See also Humanities 7)
ADVISORY: Eligibility for ENGL 125 and 126 or ENGL 153 or ESL 67 and 68 recommended.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics include language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity, education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

## 7H HONORS INTRODUCTION TO BRITISH CULTURE

3 units, 3 lecture hours, (See also Humanities 7H)
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors program listing in the college catalog.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics include language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity, education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

## 10 ISLAMIC CULTURE

3 units, 3 lecture hours
Advisory: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The foundation of Islam, Islamic beliefs, the expansion of Islamic culture throughout the world, the relationships within Moslem family and society. Twentieth century issues and contemporary conflicts. (A, CSU)

## 11 ISLAMIC CIVILIZATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Islam: its meaning and message. Islamic ideology and culture. Islamic values, science, civilization, social principles, cultural institutions, and contemporary problems. (A, CSU)

## 40 CROSS-CULTURAL APPRECIATION

1 unit, 1 lecture hour, (See also Guidance Studies 40)
ADVISORY: Eligibility for English 125 or 126 or English 153 or ESL 67 and 68 recommended.

A cross-cultural appreciation of institutions and societies of the world, including the USA (A, CSU)

## DANCE (DANCE)

## 10 MODERN DANCE

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE 4)
PREREQUSITE: None.
Modern dance exercises and improvisations involving body movement, rhythm, design, dynamics, technique, and expression. Body conditioning exercises for posture, strength, and flexibility. (A, CSU, UC)

## 11 INTRODUCTION TO SOCIAL DANCE

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: None.
Introduction to basic social dances such as swing, waltz, cha cha, tango, mixer, and line dances. (A, CSU, UC)

## 12 BEGINNING BALLET

1 unit, 3 lab hours, (Repeats = 3), (Formerly PE 26)
PREREQUISITE: None.
Fundamental technique using barre exercises and center work for the beginning student. (A, CSU, UC)

## 13 INTERMEDIATE BALLET

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: Satisfactory completion of Dance 12 or equivalent as demonstrated through testing.

Intermediate-level technique using barre exercises and center work. (A, CSU, UC)

## 14 BEGINNING JAZZ DANCE TECHNIQUE

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE 27)
PREREQUISITE: None.
A contemporary dance style, modified from ballet and modern dance, utilizing basic steps and isolated body parts; conditioning exercises for strength, flexibility, balance, and alignment done in a rhythmic form to jazz and other contemporary music. (A, CSU, UC)

## 15 INTERMEDIATE JAZZ DANCE TECHNIQUE

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: Dance 14 or demonstration of comparable skill level to be determined by testing or video portfolio of past jazz dance performance work. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A progressive refinement of jazz dance technique, building upon skills and techniques covered in Dance 14. Presentation of different jazz styles. (A, CSU, UC)

## 16 BEGINNING TAP DANCE

1 unit, 2 lab hours, (Repeats = 3)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic tap terminology. Various tap styles, sequences, and dance patterns to develop rhythm, coordination, and balance. (A, CSU, UC)

## 17 BEGINNING MEXICAN FOLKLORICO DANCE

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (See also Chicano-Latino Studies 17)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History and origin of Mexican dance. Mexican songs and folktales and how they are interpreted through Mexican dance. Dances practiced and performed at the beginning level. (A, CSU-GE, UC)

## 18 INTERMEDIATE TAP DANCE

1 unit, 2 lab hours, (Repeats = 3)
PREREQUUSITE: Dance 16 or demonstration of comparable skill level to be determined by testing or video portfolio of past dance perfor mance work. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Progressive refinement of tap dance technique, building upon skills and techniques covered in Dance 16. Presentation of different tap styles. (A, CSU, UC)

## 20A BEGINNING MODERN DANCE COMPOSITION

3 units, 2 lecture hours, 3 lab hours, (Formerly PE 20A) ADVISORY: Eligibility for English 1A recommended.
Modern dance technique including exercises for strength, flexibility, alignment and rhythmic coordination. Study of modern dance as an art form including history and theories of dance composition. Dance movement to be used improvisationally and in solo and group dances. (A, CSU-GE, UC)

## 20B INTERMEDIATE MODERN DANCE COMPOSITION

3 units, 2 lecture hours, 3 lab hours, (Formerly PE
20B)
PREREQUISITE: Dance 20A, or demonstration of comparable skill level to be determined by testing and/or video portfolio of past modern dance performance work. ADVISORY: Eligibility for English 1A recommended.

Dance exercises, sequences of movement and improvisation. Combined study of fundamentals of modern dance choreography and musical structure. (A, CSU, UC)

## 21 DANCE WORKSHOP

2-4 units, 1 lecture hour, 3-9 lab hours per unit, (Repeats = 3), (Formerly PE 21)
PREREQUISITE: For choreographers: Dance 20A or demonstration of comparable skill level to be determined by testing and/or video portfolio of past modern dance performance work. ADVISORY: Previous modern dance, jazz, or ballet experience or concurrent enrollment in ballet, jazz, or modern dance recommended. For choreographers: eligibility for English 1A recommended.

Dance technique and conditioning, improvisation, choreography, rehearsal and performance in an informal setting. Diagnostic test in dance technique will be given during the first three weeks of the semester. (A, CSU, UC)

## 22 DANCE THEATRE

1-4 units: 1 unit, 3 lab hours; 2 units, 1 lecture hour, 3 lab hours; 3 units, 1 lecture hour, 6 lab hours; 4 units, 1 lecture hour, 9 lab hours, (Repeats = 3), (Formerly PE 22)
PREREQUISITE: For choreographers: Dance 20A or demonstration of comparable skill level to be determined by testing and/or video portfolio of past modern dance performance work. ADVISORY: Current intermediate competency in ballet, jazz, or modern and concurrent enrollment in ballet, jazz, or modern dance recommended. For choreographers: eligibility for English 1A recommended.

Intermediate level dance technique and conditioning, improvisation, choreography, rehearsal, and performance for formal theatrical presentation. Participants need to demonstrate their technical level during the first three weeks of classes. (A, CSU, UC)

## 23 SELECTED TOPICS IN DANCE WORKSHOP

2-4 units, 1 lecture hour, 3-9 lab hours, (Repeats = 3)

PREREQUISITE: Satisfactory completion of four semesters of Dance 21.

Intermediate-advanced dance technique and conditioning, improvisation, choreography, rehearsal, and performance in an informal setting. Includes opportunities for support activities for the production. (A, CSU, UC)

## 24 SELECTED TOPICS IN DANCE THEATRE

1-4 units: 1 unit, 3 lab hours; 2 units, 1 lecture hour, 3 lab hours; 3 units, 1 lecture hour, 6 lab hours; 4 units, 1 lecture hour, 9 lab hours, (Repeats = 3)
PREREQUISITE: Satisfactory completion of four semesters of Dance 22.

Intermediate/advanced-level dance technique and conditioning, improvisation, choreography, rehearsal, and performance for formal theatrical presentation. (A, CSU, UC)

## 25 INTERMEDIATE SOCIAL DANCE

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: Dance 11, or the equivalent as demonstrated by testing.

Intermediate level dance technique and patterns for rhumba, fox trot, swing, waltz, cha cha, tango, mixers, and selected line dances. (A, CSU, U)

## 26 AMERICAN COLLEGE DANCE FESTIVAL

.5-1 unit, 1 lecture hour, 3 lab hours, ( 9 weeks),
(Repeats = 3)
COREQUISITE: Dance 21, 22, 23, or 24. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Preparation of dance participants for attendance at the American College Dance Festival. Participation in master classes and participation/attendance at adjudication concerts. (A, CSU)

## 27 ADVANCED MEXICAN FOLKLORICO DANCE

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ),
(See also Chicano-Latino Studies 27)
PREREQUISITE: Dance/Chicano-Latino Studies 17, or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History and origin of Mexican dance. Mexican songs and folktales and how they are interpreted through Mexican dance. Dances practiced and performed at the advanced level. (A, CSU-GE, UC)

## 30 DANCE APPRECIATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Survey of dance as a historical form of cultural and theatrical expression. Emphasis on the growth of modern ballet and modern dance from their origins to the current trends in the United States. (A, CSU-GE, UC)

## 42 AFRICAN DANCE AND PERCUSSION

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (See also African-American Studies 42),
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The theory and practice of rhythmic music, percussion and dance as an exploration of traditional African culture with special emphasis on historical antecedents and contemporary trends. (A, CSU-GE, UC)

## DATA PROCESSING see information systems

## DECISION SCIENCE (DS)

## 21 FINITE MATHEMATICS

3 units, 3 lecture hours, (See also Math 21),
(Formerly Decision Science 22)
PREREQUISITE: Math 3 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Applications of linear, exponential, and logarithmic functions, matrix operations, and inverse matrices. Linear programming techniques, mathematics of finance, probability, and counting theory. Limits, rates of change, and derivatives. (A, CSU-GE, UC)

## 23 STATISTICAL ANALYSIS

3 units, 3 lecture hours, (Formerly BA 23)
PREREQUISITE: Decision Science/Mathematics 21. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Measures of central tendency and dispersion; probability theory; discrete and continuous distributions; sampling theory and estimation; time series analysis and index numbers. (A, CSU-GE, UC)

## 117 BUSINESS MATHEMATICS

3 units, 3 lecture hours, (Formerly Decision Sciences
17 and 21)
PREREQUISITE: Math 50 or designated math score. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The use of formulas and organizing procedures for solving business and consumer math applications. Includes the use of signed numbers, linear equations, graphing, systems of equations, inequalities, exponents, polynomials, evaluating and simplifying algebraic expressions, and the extensive use of word problems. (A)

## 270 BUSINESS MATH SKILLS

1 unit, 1 lecture hour, (Formerly Decision Science 70) PREREQUISITE: None.
Review of math fundamentals with emphasis on application problems related to accounting. Utilization of business-oriented word problems, percentages, and decimals in common business applications.

## DENTAL HYGIENE (DH)

## 1A ORAL BIOLOGY

2 units, 2 lecture hours, 1 lab hour, (Fall, first year)
PREREQUISITE: Admission into the Dental Hygiene Program. Biology 24, with a grade of " $C$ " or better, or Biology 20 and 22, each with a grade of " $C$ " or better. COREQUISITE: Dental Hygiene 3A, 4, and 10.

Embryology and histology of oral structural formation; clinical recognition of normal oral structures; study of the physiological and structural functions of teeth and supporting tissues; oral anatomy relative to administration of local anesthetic agents. (A, CSU)

## 1B GENERAL AND ORAL PATHOLOGY

4 units, 4 lecture hours, (Spring, first year)
PREREQUISITE: English 125 and Dental Hygiene 1A, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 2, 5A, 6A, 8A, and 11. ADVISORY: English 1 A with a grade of " C " or better strongly advised.

Pathologic processes; disease, inflammation, immunologic defense, degeneration, neoplasia, developmental disorders, healing and repair, recognition of normal and abnormal conditions in the oral cavity; recognition of abnormalities in the human body. (A, CSU)

## 1C PERIODONTOLOGY

2 units, 2 lecture hours, (Fall, second year)
PREREQUISITE: Dental Hygiene 1A and 1B, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 3B, 5B, 6B, and 7A.

Periodontal anatomy and histology; recognition of the normal and pathological periodontium, etiology and treatment of periodontal disorders; pathogenesis of inflammatory periodontal disease; periodontal examination, prognosis, and treatment planning; periodontal instrumentation; gingival curettage and other periodontal surgical procedures. (A, CSU)

## 1D APPLIED PERIODONTICS

1 unit, 1 lecture hour, (Spring, second year)
PREREQUISITE: Dental Hygiene 1C and 5B, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 5C, 7B, 8B, and 9.

The dental hygienist's ethical and clinical responsibility in the treatment of periodontal disorders. Relationship of the specialty practice of periodontics within the broad scope of dentistry. Current concepts and future possibilities relevant to the practice of periodontics. (A, CSU)

## 2 DENTAL MATERIALS AND ASSISTING

2 units, 1 lecture hour, 3 lab hours, (Spring, first year)
PREREQUISITE: Dental Hygiene 3A and 1A, each with a grade of " C " or better. COREQUISITE: Dental Hygiene 1B, 5A, 6A, 8A, and 11.

The composition and use of numerous categories of materials used in dental procedures; an approach to chairside assisting techniques; concepts of the dental health team; principles and application of expanded duties for registered dental hygienists. (A, CSU)

## 3A PRE-CLINICAL DENTAL HYGIENE TECHNIQUES

4 units, 2 lecture hours, 6 lab hours, (Fall, first year)
PREREQUISITE: Acceptance into the Dental Hygiene Program. Biology 31 and Speech 1 or 2 , each with a grade of " $C$ " or better. COREQUISITE: Dental Hygiene 1A, 4, and 10.

Medical and dental histories; extra and intraoral examination; patient education; patient and operator positioning; clinical operations and appointment procedures; use and care of instruments; patients records; equipment maintenance and sterilization; asepsis and infection control procedures. (A, CSU)

## 3B ADVANCED SEMINAR TOPICS

2 units, 2 lecture hours, (Fall, second year)
PREREQUISITE: Dental Hygiene 3A and 5A, each with a grade of " $C$ " or better. COREQUSITE: Dental Hygiene 1C, 5B, 6B, and 7A.

Seminar format with discussion of various topics dealing with the clinical practice of dental hygiene. Advanced clinical procedures; communicable disease protection; diagnosis and decision making; root mor phology and root planing; patient case presentation; probing, charting, polishing, and sealant application. Presentation of the history of dental specialties including pedodontics, orthodontics, periodontics, oral surgery, endodontics, prosthodontics, and the role of the dental hygienist in each dental specialty. Specialities practice research and presentation. (A, CSU)

## 4 ORAL RADIOLOGY

2 units, 1 lecture hour, 3 lab hours, (Fall, first year)
PREREQUISITE: Acceptance into the Dental Hygiene Program. COREQUISITE: Dental Hygiene 1A, 3A, and 10.

Radiation and radiation protection; use of x-ray equipment; practice in placement, exposure, processing, mounting and interpretation of intraoral radiographs. (A, CSU)

## 5A CLINICAL DENTAL HYGIENE I

3 units, 8 lab hours, (Spring, first year), (Credit/No
Credit)
PREREQUISITE: Dental Hygiene 3A and 4, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 1B, 2, 6A, 8A, and 11.

Beginning experience in the treatment of adult and child patients; various clinical procedures including scaling and polishing techniques, oral inspection, dental and periodontal charting, principles of ultrasonic scaling, radiographic techniques, plaque control instruction, and fluoride application; principles of dental hygiene practice. (A, CSU)

## 5B CLINICAL DENTAL HYGIENE II

5 units, 16 lab hours, (Fall, second year), (Credit/No Credit)
PREREQUISITE: Dental Hygiene 5A with a "credit" grade. COREQUISITE: Dental Hygiene 1C, 3B, 6B, and 7A.

Intermediate experiences in the treatment of dental hygiene patients; includes principles and procedures of Dental Hygiene 5A plus techniques for administering local anesthetics; various field experiences. (A, CSU)

## 5C CLINICAL DENTAL HYGIENE III

5 units, 15 lab hours, (Spring, second year), (Credit/ No Credit)
PREREQUISITE: Dental Hygiene 5B with a "Credit" grade. COREQUISITE: Dental Hygiene 1D, 7B, 8B, and 9.

Advanced experience in patient treatment procedures; includes principles and procedures of Dental Hygiene 5A and Dental Hygiene 5B plus the techniques of soft tissue curettage, nitrous oxide-oxygen analgesia, and nutritional counseling. (A, CSU)

## 6 A DENTAL EMERGENCIES

1 unit, 1 lecture hour, (Spring, first year)
PREREQUISITE: Dental Hygiene 3A with a grade of " $C$ " or better. COREQUISITE: Dental Hygiene 1B, 2, 5A, 8A, and 11.

Prevention of emergency situations; management of dental and medical emergencies. CPR certification reviewed. (A, CSU)

## 6B PHARMACOLOGY

2 units, 2 lecture hours, (Fall, second year)
PREREQUISITE: Dental Hygiene 6 A with a grade of " $C$ " or better. COREQUISITE: Dental Hygiene 1C, 3B, 5B, and 7A.

Sources, dosages, therapeutic action, and side effects of drugs used in dentistry; classification, administration, and effects of drugs; pharmacology and physiology of local anesthetic agents and nitrous oxide gas. (A, CSU)

## 7A COMMUNITY DENTAL HEALTH I

2 units, 2 lecture hours, (Fall, second year)
PREREQUISITE: Dental Hygiene 3A and 5Aand Psychology 2, each with a grade of "C" or better. COREQUSSITE: Dental Hygiene 1C, 3B, 5B and 6B.

Procedures for improving public health, community dental health, and target group selection. Introduction to biostatistics and dental research techniques. Principles of education. (A, CSU)

## 7B COMMUNITY DENTAL HEALTH II

1 unit, 1 lecture hour, (Spring, second year)
PREREQUISITE: Dental Hygiene 7A and 5B, Food and Nutrition 40, and Sociology 1A, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 5C, 1D, 8B, and 9.

Community dental health; implementation of target group dental health project; tobacco cessation program; health care delivery systems; available methods for purchase of dental care; community fluoridation and biostatistics. (A, CSU)

## 8A PATIENT MANAGEMENT

1 unit, 1 lecture hour, (Spring, first year)
PREREQUISITE: Dental Hygiene 3A with a grade of " C " or better. COREQUISITE: Dental Hygiene 1B, 2, 5A, 6A, and 11.

Patient characteristics, motivation, and management; interpersonal communication and treatment planning. Treatment of the compromised patient. (A, CSU)

## 8B PRACTICE AND FINANCIAL MANAGEMENT

2 units, 2 lecture hours, (Spring, second year)
PREREQUISITE: Dental Hygiene 8A with a grade of " C " or better. COREQUISITE: Dental Hygiene 5C, 1D, 7B, and 9.

Office practice management and the dental hygienist's role in the office team; ethical and legal aspects of dentistry and dental hygiene; personal business matters relating to dental hygiene practice. (A, CSU)

## 9 NUTRITION IN DENTISTRY

1 unit, 1 lecture hour, (Spring, second year)
PREREQUISITE: Dental Hygiene 5B and Chemistry 3B, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 5C, 1D, 7B, and 8 B .

Nutrition as it relates to dentistry; nutritional counseling and dietary surveys with clinical patients. (A, CSU)

## 10 HEAD AND NECK ANATOMY

2 units, 1 lecture hour, 2 lab hours, (Fall, first year)
PREREQUISITE: Acceptance into the Dental Hygiene Program. COREQUISITE: Dental Hygiene 1A, 3A, and 4.

Gross anatomical structure; relationship and function of organs of the head and neck regions. Naming of anatomic structures located in the head and neck area. (A, CSU)

11 LOCAL ANESTHESIA
1 unit, 1 lecture hour, (Spring, first year)
PREREQUISITE: Dental Hygiene 1A and 3A, each with a grade of "C" or better. COREQUSITE: Dental Hygiene 1B, 2, 5A, 6A, and 8A.

Pharmacology and physiology of local and topical anesthetic agents; the concept of pain and pain control; anatomy of the trigeminal nerve, physiology of nerve conduction, and the blockage of nerve impulses. Preparation of the armamentarium for local anesthetic injections and techniques of regional anesthesia in dentistry. (A, CSU)

## 200 CLINICAL DENTAL HYGIENE IV

.2-1 unit, 1.33-8 lab hours, ( 6 weeks), (Repeats $=3$ )
PREREQUISITE: Graduation from an accredited Dental Hygiene Program.

Advanced experience in patient treatment procedures. Principles and procedures of Dental Hygiene 5A, 5B, and 5C. Provides treatment opportunities that allow students to maintain and perfect their dental hygiene skill level between program graduation and successful completion of clinical licensing examinations. Students must have current CPR certification and malpractice insurance.

## DEVELOPMENTAL SERVICES (DEVSER)

## 252 DEVELOPMENTAL STUDY SKILLS

1 unit, 3 lab hours, (Credit/No Credit), (Repeats = 3), (Formerly Developmental Services 52)
An emphasis on note-taking, textbook study, outlining, efficient use of time, use of library, and test taking. Designed for students with physical, communicative, and/or learning limitations.

## 260 WORKABILITY

3 units, 3 lecture hours, (Credit/No Credit), (Repeats
= 3), (Formerly Developmental Services 60)
Designed to allow students with disabilities to make successful occupational choices through career exploration, decision-making, and work experience/employment. Designed for students with physical, communicative, and/or learning limitations.

## 262 GROUP DYNAMICS FOR THE DISABLED

2 units, 2 lecture hours, (Credit/No Credit), (Repeats
= 1), (Formerly Developmental Services 62)
Devel opment of self-understanding through group dynamics. Designed for students with physical, communicative, and/ or learning limitations.

## 265 INDIVIDUALIZED INSTRUCTIONAL PROBLEMS

1 unit, 3 lab hours, (Credit/No Credit), (Repeats = 3), (Formerly Developmental Services 65)
An emphasis on the development of skills taught in reading, writing, spelling, math or study skills. Designed for students with physical, communicative, and/or learning limitations.

## 272 CONSUMER SKILLS

2 units, 6 lab hours, (Credit/No Credit), (Repeats =
3), (Formerly Developmental Services 72)

Emphasis on home management, personal finance, health and safety, food and nutrition. Designed for the developmentally delayed learner.

## 273 INDEPENDENT LIVING SKILLS FOR DSP\&S STUDENTS

2 units, 6 lab hours, (Credit/No Credit), (Repeats =
3), (Formerly Developmental Services 73)

Basic independent living skills. Designed for the developmentally delayed learner.

## 275 HORTICULTURE SKILLS I

2 units, 6 lab hours, (Credit/No Credit), (Repeats = 2), (Formerly Developmental Services 75)

Basic techniques of foliage plant care with emphasis on transfer able employment skills. Designed for students with psychological disabilities.

## 276 HORTICULTURE SKILLS II

2 units, 6 lab hours, (Credit/No Credit), (Repeats $=2$ ), (Formerly Developmental Services 76)
Intermediate techniques of foliage plant care and basic design with an emphasis on transferable employment skills. Designed for students with psychological disabilities.

## 277 ADAPTED COMPUTER LITERACY

2 units, 1 lecture hour, 3 lab hours (Credit/No
Credit), (Repeats = 3), (Formerly Developmental
Services 77)
Introduction to computers and commonly used microcomputer applications. Emphasis on computer use and adaptation. In depth coverage of computers and their impact in society. Designed for students with physical, communicative, and/or learning limitations.

## 278 MODIFIED WORD PROCESSING

2 units, 1 lecture hour, 3 lab hours, (Credit/No
Credit), (Repeats $=3$ ), (Formerly Developmental
Services 78)
Basic word processing terminology and understanding of WordPerfect. Designed for students with physical, communicative, and/ or learning limitations.

## 279 MODIFIED COMPUTER APPLICATIONS

2 units, 1 lecture hour, 3 lab hours, (Credit/No
Credit), (Repeats = 3), (Formerly Developmental
Services 79)
Expansion and enhancement of word processing, database management, spreadsheet, and other highly marketable microcomputer applications. Designed for students with physical, communicative, and/ or learning limitations.

## 280 WORKABILITY VOCATIONAL EDUCATION (WAVE) CAREER DEVELOPMENT

4 units, 2 lecture hours, 6 lab hours, (Credit/No Credit), (Repeats = 3), (Open Entry/Open Exit), (Formerly Developmental Services 80)
PREREQUISITE: Must be a California State Department of Rehabilitation client. Specifically designed for the student with a severe disability and/or learning disability. COREQUISITE: Developmental Ser vices 81 .

Designed for the student with a severe disability and/or learning disability. Emphasis on developing skills in the areas of career awareness, career exploration, career preparation, socialization, utilizing community resources and appropriate grooming and hygiene. Designed to prepare students for employment.

## 281 WORKABILITY VOCATIONAL EDUCATION (WAVE) CAREER EXPLORATION

1-4 units, (Credit/No Credit), (Repeats = 3), (Open
Entry/Open Exit), (Formerly Developmental Services 81)

PREREQUISITE: Must be a California State Department of Rehabilitation client. COREQUISITE: Developmental Services 80.

The amount of college credit earned by the student is dependent upon the number of hours of work during the semester as follows.
a. One unit for minimum 75 hours;
b. Two units for minimum of 150 hours;
c. Three units for minimum of 225 hours;
d. Four units for total of 300 hours.

Specifically designed for the student with a severe disability and/ or learning disability. Emphasis on developing skills in the area of time management, following directions and instructions, appropriate work behaviors, selecting and planning vocational choices. Designed to prepare students for employment.

## 282 WORKFORCE PREP

4 units, 12 lab hours, (Credit/No Credit), (Repeats = 3), (Formerly Developmental Services 82)

An introduction to pre-vocational training in order to prepare students for success in future employment. Topics include grooming, hygiene, clothing care, money management, occupational behavior, and interpersonal skills.

## 359 DIFFERENTIAL LEARNING DIAGNOSIS

0 units, 3 lab hours, (Repeats = 3), (Formerly
Developmental Services 59)
Learning skill assessment to identify learning strengths and deficits. Learning disability assessment to determine eligibility for services in California community colleges. Designed for students with physical, communicative, and/or learning limitations.

## DRAFTING (DRAFT)

SEE ALSO COMPUTER AIDED DRAFTING AND DESIGN

## 12 BOARD DRAFTING PRACTICES

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: None.
Freehand sketching, orthographic projection, measuring devices,
geometric construction, pictorial drawing and dimensioning in preparation for computer aided drafting and design. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to drafting. Learning objectives established specific to drafting. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 160 MATHEMATICS OF DRAFTING

3 units, 3 lecture hours, (Formerly Drafting 60)
PREREQUISITE: Eligibility for Math 101 or Applied Technology 130.

Elementary algebra review, measurements, logarithms, and trigonometric ratios. (A)

## eCOMMERCE (ECOM)

## 1 INTRODUCTION TO ECOMMERCE

3 units, 3 lecture hours
ADVISORY: IS 12 or 15 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended. Course offered online only.

The nature and environment of electronic commerce. Designing the digital enterprise, customer empowerment, eCommerce models, the eCommerce business plan, eCommerce trends, governmental influences, and defining a cyber community. (A, CSU)

## 2 THE US \& EU BUSINESS CULTURES

3 units, 2 lecture hours
ADVISORY: IS 12 or 15 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Course offered online only.

Acquaints students with the American and European business cultures. Topics include gender issues, organized labor, rewards and punishments, promotions, legal issues, attire, employee rights, and nonverbal communication. (A, CSU)

## ECONOMICS (ECON)

## 1A INTRODUCTION TO MACROECONOMICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Principles of macroeconomics: consumers, business, and government in the United States economy. Alternative approaches and solutions to inflation and unemployment; fiscal and monetary policy in economic planning and management. (CANECON2) (A, CSU-GE, UC, I)

## 1AH HONORS INTRODUCTION TO MACROECONOMICS

3 units, 3 lecture hours
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

Principles of macroeconomics: consumers, business, and government in the United States economy. Alternative approaches and solutions to inflation and unemployment, fiscal and monetary policy in economic planning and management. In addition, Honors sections will discuss and analyze the works of historical economic figures. (A, CSU)

## 1B INTRODUCTION TO MICROECONOMICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

The "free enterprise" system. Theories of consumer and individual firm behavior. Market structure analysis and comparison. Government programs to assist, regulate, and promote various industries. The American labor movement and international trade. (CANECON4) (A, CSUGE, UC, I)

## EDUCATION (EDUC)

## 30 SURVEY OF EDUCATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Educational theory and practice for those interested in the American school system or considering career opportunities in the teaching profession. Educational history, philosophy, goals, school systems, current issues, and entry requirements to professional teaching programs. Field trips required. (Meets CSU requirements when combined with EDAP 19.) (A, CSU)

200A CBEST PREPARATION: ENGLISH
.5 unit, 3 lecture hours, (3 weeks), (Repeats = 3), (Credit, No Credit), (Formerly Education 100 and 100A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and recommended.

Areview of reading comprehension and essay writing, designed to assist students and teachers prepare for the CBEST. (Aspecial class that facilitates measurable progress toward an education goal. [56030])

## 200B CBEST PREPARATION: MATHEMATICS

1 unit, 3 lecture hours, ( 6 weeks), (Credit/No Credit), (Repeats = 3), (Formerly Education 100 and 100B) ADVISORY: Eligibility for Math 101 recommended.
A review of mathematics designed to assist students and teachers prepare for the CBEST. (A special class that facilitates measurable progress toward an education goal. [ 56030 c ].)

## EDUCATIONAL AIDE (EDA)

## 1 TUTOR TRAINING

1 unit, 1 lecture hour, 1 lab hour
Methods and materials for tutoring with supervised practice in applying the concepts, principles and methods in the process of conducting individual and small group tutorials. Designed for peer tutors working in college tutorial, math and English learning centers and for adult students employed or desiring future employment as educational or instructional aides or as teachers. (A, CSU)

## 6 SURVEY OF SPECIAL EDUCATION

3 units, 3 lecture hours, (Formerly Educational Aide 60)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The role of the special education assistant in the training of the exceptional student. (A, CSU)

## 7 EDUCATIONAL AIDE TRAINING — LEARNING

DISABILITIES
3 units, 3 lecture hours, (Formerly Educational Aide 61)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Survey of the field of special education emphasizing the role of the special education assistant in training the learning disabled student. (A, CSU)

19 OCCUPATIONAL WORK EXPERIENCE
1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to educational aide. Learning objectives established specific to educational aide. Seventyfive hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## EDUCATIONAL AIDE/PARAEDUCATOR (EDAP)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to educational aide/paraeducator. Learning objectives established specific to educational aide/paraeducator. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## ELECTRICITY

SEE ELECTRICAL SYSTEMS TECHNOLOGY

## ELECTRICAL SYSTEMS TECHNOLOGY (EST)

FORMERLY ELECTRONIC TECHNOLOGY

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3), (Formerly Electronic
Technology 19)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to electronic tech-
nology. Learning objectives established specific to electronic technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 50 INTRODUCTION TO ELECTRONICS

2.5 units, 5 lecture hours, ( 9 weeks), (Formerly

Electronic Technology 50)
PREREQUISITE: None.
An introduction to the electrical systems technology program. Intensive review and practice in the reading and math skills necessary for success in this career field. (A, CSU)

## 51 FUNDAMENTALS OF ELECTRONICS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 51)
PREREQUISITE: None.
Fundamental principles and application of direct current and alternating current circuits. Emphasis on properties of conductors, insulators, and basic components. (A, CSU)

## 52 CIRCUIT ANALYSIS

3 units, 3 lecture hours, (Repeats $=3$ ), (Formerly
Electronic Technology 55)
PREREQUISITE: None.
Practical application of mathematical principles in solving electronic circuits. (A, CSU)

## 53 LAB SAFETY PRACTICES

1 unit, 1 lecture hour, 2 lab hours, (Formerly
Electronic Technology 57)
PREREQUISITE: None.
Introduction to the proper use of hand tools and safe lab practices, componentidentifications, and general assembly procedures. (A, CSU)

## 54 INTEGRATED DEVICES

3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 52)
PREREQUISITE: None.
Fundamentals of integrated devices and their applications. Proper and safe use of test equipment. (A, CSU)

55A DIGITAL CONCEPTS
3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 53)
PREREQUISITE: None.
Introduction to numbering systems, digital logic and logic gates. Includes subcomponents of digital systems and basic logic circuit design on computers. (A, CSU)

## 55B DIGITAL APPLICATIONS

5 units, 2 lecture hours, 9 lab hours
PREREQUSITE: None.
Application of digital logic concepts and their applications in control systems. Includes microcomputer programming to interface with real-world devices. (A, CSU)

## 56 INDUSTRIAL ELECTRONICS

8 units, 5 lecture hours, 10 lab hours, (Formerly
Electronic Technology 56)
PREREQUSITE: None.
Programmable control systems and devices with industrial applications. PLC and PC computer based control systems with emphasis on polyphase circuits. Terminology, methods, and NEC regulations for commercial and industrial wiring systems. (A, CSU)

## 57 COMMUNICATION FUNDAMENTALS

8 units, 5 lecture hours, 10 lab hours, (Formerly
Electronic Technology 54)
PREREQUISITE: None.
Communication components and how they interface to form a network. (A, CSU)

## 58 PROGRAMMABLE LOGIC CONTROLLERS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 58)
PREREQUISITE: None.
Programmable controllers, basic programming of programmable logic controllers, and input/output device interfacing. (A, CSU)

## 59 INSTRUMENTATION SYSTEMS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 60)
PREREQUISITE: None.
Basic instrumentation and control concepts with application in process control systems. Calibrating, terminology, and Piping and Instrument Diagram (P\&ID) symbols as established by the Instrument Society of America. (A, CSU)

## 60 PC \& LAN MAINTENANCE

3 units, 3 lecture hours 1 lab hour, (Formerly
Electronic Technology 61)
PREREQUSITE: None.
Upgrading and maintaining personal computers for use on a local area network, including RAM, CD-ROMs, hard drives, floppy drives and modems. (A, CSU)

Course Descriptions

## 61 NETWORKING ESSENTIALS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 59)
ADVISORY: Electrical SystemsTechnology 55A, Electrical Systems
Technology 60 and Applied Technology 10 strongly recommended.
Local Area Networks fundamentals. First class for the Cisco CCNA Certification. (A, CSU)

62 ROUTER THEORY AND TECHNOLOGY
3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Electrical Systems Technology 61.
Local Area Network routers and switches including basic configuration and protocols. Second class for the Cisco CCNA Certification. (A, CSU)

## 63 ADVANCED ROUTING AND SWITCHING

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Electrical Systems Technology 62
Local Area Network routers and switches including advanced configuration, design and protocols. Third class for the Cisco CCNACertification. (A, CSU)

## 64 ADVANCED NETWORKING AND MANAGEMENT

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Electrical Systems Technology 63
Local Area Network routers and switches including advanced network designs and management. Fourth class for the Cisco CCNACertification. (A, CSU)

## 65 ADVANCED ROUTING PROTOCOLS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1)
PREREQUISITE: Electrical Systems Technology 64 or equivalent.
Routing protocols for interior and exterior networks. First class for the Cisco CCNP Certification. (A, CSU)

## 66 REMOTE-ACCESS NETWORKS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1)
PREREQUISITE: Electrical Systems Technology 65.
Designing and configuring routers for remote access. Second class for the Cisco CCNP Certification. (A, CSU)

## 67 MULTI-LAYER SWITCHING

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1)
PREREQUISITE: Electrical Systems Technology 66.
Implementing switches and VLANS into a network. Third class for the Cisco CCNP Certification. (A, CSU)

68 NETWORK TROUBLESHOOTING
3 units, 3 lecture hours, 1 lab hour, (Repeats = 1)
PREREQUISITE: Electrical Systems Technology 67.
Diagnosing and correcting problems on VLANS and WAN networks. Fourth class for the Cisco CCNP Certification. (A, CSU)

96 NATIONAL ELECTRICAL CODE
3 units, 3 lecture hours, (Repeats $=3$ ), (Formerly
Electronic Technology 96A and 96B)
PREREQUISITE: None.
Application and discussion of the National Electrical Code. (A, CSU)

## 175 RESIDENTIAL WIRING

4 units, 3 lecture hours, 4 lab hours, (Repeats = 3), (See also Construction 175), (Formerly Electronic
Technology 75 and Electrical Systems Technology 75)
PREREQUISITE: None.
Introduction, technique and installation of the electrical wiring system for a single family residence. Installation of the actual wiring system for the Fresno City College construction department's singlefamily residence at an off-campus location. Emphasis on current wiring practices and electrical codes. (A)

261 NETWORKING ESSENTIALS-INSTRUCTOR TRAINING
2 units, 20 lecture hours, 12 lab hours, (2 weeks)
PREREQUISITE: Designated instructor at a Cisco Local Networking Academy.

Local Area Networks fundamentals. First class for the Cisco CCNA Certification.

## 262 ROUTER THEORY AND TECHNOLOGY-INSTRUCTOR

 TRAINING2 units, 16 lecture hours, 8 lab hours, ( 2 weeks)
PREREQUISITE: Electrical Systems Technology 261 and designated instructor at a Cisco Local Networking Academy.

Local Area Network routers and switches including basic configuration and protocols. Second class for the Cisco CCNA Certification.

## 263 ADVANCED ROUTING AND SWITCHING-INSTRUCTOR

 TRAINING1 unit, 20 lecture hours, 12 lab hours, (1 week)
PREREQUISITE: Electrical Systems Technology 262 and designated instructor at a Cisco Local Networking Academy.

Local Area Network routers and switches including advanced configuration, design and protocols. Third class for the Cisco CCNACertification.

## 264 ADVANCED NETWORKING AND MANAGEMENTINSTRUCTOR TRAINING

1 unit, 20 lecture hours, 12 lab hours, (1 week)
PREREQUISITE: Electrical Systems Technology 263 and designated instructor at a Cisco Local Area Networking Academy.

Local Area Network routers and switches including advanced network designs and management. Fourth class for the Cisco CCNACertification.

## 272 INDUSTRIAL MOTOR CONTROL

3 units, 2.5 lecture hours, 1.5 lab hours, (Formerly
Electronic Technology 72 and Electrical Systems
Technology 72)
PREREQUISITE: None.
Theory, installation, and maintenance of motors and motor control devices. Designed for electricians and technicians working in the field who wish to upgrade their skills.

## 273 INDUSTRIAL ELECTRONIC FUNDAMENTALS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 73 and Electrical Systems
Technology 73)
PREREQUISITE: None.
Solid state devices, switching circuits, transducers, industrial control devices, and blueprint reading.

## ELECTRONICS

SEE ELECTRICAL SYSTEMS TECHNOLOGY (EST)

## ENGINEERING (ENGR)

## 1A ELEMENTARY PLANE SURVEYING 1

3 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Math 4A.
Principles and practice of surveying measurements, computation, and data analysis. Includes measurements of distance, angle and direction, error analysis, and topographic mapping. Application to the solution of surveying and construction field assignments. (CANENGR 10) (A, CSU, UC)

1B ELEMENTARY PLANE SURVEYING 2
3 units, 3 lecture hours, 3 lab hours
PREREQUSITE: ENGR 1A.
Principles and practice of surveying measurement. Introduction to Global Positioning Systems (GPS), Geographical Information Systems (GIS), management and representation of surveying and mapping data, astronomy for surveying measurement. (A, CSU, UC)

## 2 GRAPHICS

4 units, 2 lecture hours, 6 lab hours
ADVISORY: Math 4A and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Principles of orthographic and axonometric projection, sketching, dimensioning and tolerances. Introduction to computer aided design (CAD). Application to the solution of engineering problems. (CAN ENGR 2) (A, CSU, UC)

## 4 ENGINEERING MATERIALS

3 units, 3 lecture hours, (Formerly Engineering 32)
PREREQUISITE: Chemistry 1A and Physics 4A.
Properties of engineering materials and their relation to atomic structure. The effect of microstructure on the mechanical, electrical, magnetic and thermal properties. Phase equilibria and strengthening processes for metals, ceramics, and polymers. (CAN ENGR 4) (A, CSU, UC)

## 6 CIRCUITS WITH LAB

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Physics 4B. ADVISORY: Concurrent enrollment in Math 7 recommended.

An introduction to the solution of the equations arising from the applications of Kirchoff's laws and Thevinen's theorem to DC and AC circuits. Topics include mesh and nodal analysis, periodic forcing functions, phasors, frequency response, resonant circuits, natural and complete response, analog signal systems, dependent sources, and the characteristics of operational amplifiers. (CAN ENGR 6) (A, CSU)

## 8 STATICS

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Physics 4A ADVISORY: Mathematics 5B and Physics 4A and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Rigid bodies in static equilibrium when acted upon by forces and couples in two and three dimensions. Equilibrium of rigid bodies, trusses, frames and machines. The calculation of centers of mass, centroids, friction and moments of inertia. (CAN ENGR 8) (A, CSU, UC)

## 10 INTRODUCTION TO ENGINEERING

2 units, 2 lecture
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the engineering profession for students interested in a career in engineering or technology. Topics include analytical problem solving techniques, career opportunities, professional ethics, and the design process. Projects and field trips required. (A, CSU, UC)

## 11 MANUFACTURING PROCESSES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Processing and manufacturing techniques for steel, ceramics, polymers, composites and other industrial materials. Topics include the capabilities and limitations of casting, welding, forming, and machining. Demonstrations and field trips may be included. (A, CSU)

## ENGINEERING TECHNOLOGY

SEE DRAFTING

## ENGLISH (ENGL)

## 1A READING AND COMPOSITION

4 units, 4 lecture hours
PREREQUISITE: A "Credit" grade in English 125 or ESL 67 and English 126 or ESL 68 or appropriate score on reading and writing sections of Placement Test.

Reading, analyzing, and writing college-level prose, with emphasis on the expository; studying writing as a process; exploring different writing strategies; summarizing, editing, and critiquing; conducting research (gathering, organizing, evaluating, integrating and documenting information). (CAN ENGL 2) (A, CSU-GE, UC, I)

## 1AH HONORS READING AND COMPOSITION

4 units, 4 lecture hours, (Formerly Honors 1E)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Reading, analyzing, and writing college-level prose, with emphasis on the expository: studying writing as a process; exploring different writing strategies; summarizing, editing, and critiquing; conducting research (gathering, organizing, evaluating, integrating and documenting information). Honors sections may cover additional subject matter such as creative writing, peer response, the study of oral narrative and its relationship to writing and composing on the computer. (CANENGL 2) (A, CSU-GE, UC, I).

1B INTRODUCTION TO THE STUDY OF LITERATURE
3 units, 3 lecture hours
PREREQUSITE: English 1Aor the equivalent.
Reading and critical analysis of short stories, novels, poems, and plays. (CAN ENGL 4) (A, CSU-GE, UC, I)

## 1BH HONORS INTRODUCTION TO THE STUDY OF LITERATURE

3 units, 3 lecture hours, (Formerly Honors 1F)
PREREQUISITE: English 1A or the equivalent. ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Reading and critical analysis of short stories, novels, poems, and plays. Honors sections may cover additional subject matter such as introduction to formal literary criticism in addition to more extensive reading of literature and additional writing. (A, CSU-GE, UC, I).

## 3 CRITICAL READING AND WRITING

3 units, 3 lecture hours
PREREQUISITE: English 1A.
Developing critical thinking skills in reading and writing beyond English 1A. Reasoning for analysis and argument writing based mainly on non-fiction readings. (A, CSU-GE, UC, I)

## 3H HONORS CRITICAL READING \& WRITING

3 units, 3 lecture hours
PREREQUISITE: English 1A ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Developing critical thinking skills in reading and writing beyond English 1A. Reasoning for analysis and argument writing based mainly on non-fiction readings. Honors sections may cover additional subject matter, such as more in-depth analytical research, extensive analysis of rhetorical discourse, and the study of how critical reasoning and argument is utilized in content area research and practice. (A, CSU)

## 4 STRUCTURE OF ENGLISH

3 units, 3 lecture hours, (See also Linguistics 4)
PREREQUISITE: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68.

The principles of the English spelling system, word formation and morphology, and basic and advanced grammatical analysis. (A, CSU, UC)

## 6 POWER READING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

To improve reading comprehension, enlarge vocabulary, develop flexibility of reading rate, and stimulate interest. (A, CSU)

12 THE BIBLE AS LITERATURE
3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent. English 1B is not a prerequisite for this class.

Asurvey of the Bibleasliterature. Reading and critical analysis of the Old and New Testaments. (A, CSU-GE, UC, I)

14 FOLKLORE
3 units, 3 lecture hours, (See also Anthropology 14)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Cultural functions of traditional narratives, beliefs, and activities in primitive and developed societies; collection techniques and methods of analysis. (A, CSU, UC)

## 15A CREATIVE WRITING: POETRY

3 units, 3 lecture hours, (Repeats $=1$ ), (Formerly
English 15)
PREREQUISITE: English 1A or the equivalent.
Writing poetry for critical review. (A, CSU, UC)

## 15B CREATIVE WRITING: FICTION

3 units, 3 lecture hours, (Repeats $=1$ ) PREREQUISITE: English 1A or the equivalent. Writing fiction for critical review. (A, CSU, UC)

15C CREATIVE WRITING: PLAYWRITING
3 units, 3 lecture hours, (Repeats $=1$ )
PREREQUISITE: English 1A or the equivalent. Writing plays for critical review. (A, CSU, UC)

15D CREATIVE WRITING: AUTOBIOGRAPHY
3 units, 3 lecture hours, (Repeats $=1$ )
PREREQUISITE: English 1A or the equivalent.
Writing autobiography for critical review. (A, CSU, UC)
40 CRITICAL THINKING ABOUT THEMES IN LITERATURE 3 units, 3 lecture hours, (Repeats $=1$ ) PREREQUISITE: English 1A
Themes, authors, or genres through close readings, contextual approaches, interpretations, and critical evaluations. The subject will vary with the instructors, for example, "Rites of Passage in the American Consciousness," "The Detective as Hero" ; Emily Dickinson, Carlos Fuentes; popular literature, science fiction. (A, CSU-GE, UC)

## 42 CLASSIC MYTHS

3 units, 3 lecture hours
PREREQUISITE: Eligibility for English 1A.
Reading and critical analysis of basic mythic themes in litera-
ture, film, and the visual arts. The origin of myths in ritual, their development in western civilization, and their ultimate form and continued presence in the arts. (A, CSU-GE, UC, I)

## 44A WORLD LITERATURE

3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent. English 1B is not a prerequisite for this class.

A survey of the most enduring fiction, drama, and poetry from classical antiquity to the renaissance. (A, CSU-GE, UC, I)

## 44B WORLD LITERATURE

3 units, 3 lecture hours
PREREQUISITE: English 1Aor equivalent. Neither English 1B nor English 44A is a prerequisite for this class.

Asurvey of the most enduring fiction, drama, and poetry from the neo-classic era to the present. (A, CSU-GE, UC, I)

## 45 CONTEMPORARY WORLD LITERATURE

3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent. English 1B is not a prerequisite for this class.

Contemporary works in world literature in fiction, drama, poetry, biography, and essay. (A, CSU-GE, UC, I)

## 46A ENGLISH LITERATURE TO 1800

3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent. English 1B is not a prerequisite for this class.

A survey of British and Irish fiction, poetry, and drama from the earliest writings through 1800. (CAN ENGL 8) (A, CSU-GE, UC, I)

## 46B ENGLISH LITERATURE FROM 1800 TO THE PRESENT

3 units, 3 lecture hours
PREREQUISITE: English 1Aor equivalent. Neither English 1B nor English 46A is a prerequisite for this class.

Asurvey of British and Irish fiction, poetry, and drama of the Romantic, Victorian, and Contemporary periods. (CANENGL10) (A, CSUGE, UC, I)

## 48A INTRODUCTION TO AMERICAN LITERATURE TO WORLD

 WAR I3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent. English 1B is not a prerequisite for this class.

Asurvey of short stories, novels, poetry, essays, and plays produced by the greatest American writers of the period. (CANENGL 14) (A, CSUGE, UC, I)

## 48B INTRODUCTION TO AMERICAN LITERATURE FROM WORLD WAR I TO THE PRESENT

3 units, 3 lecture hours
PREREQUISITE: English 1Aor equivalent. Neither English 1B nor English 48A is a prerequisite for this class.

Asurvey of short stories, novels, poetry, essays, and plays produced by the greatest American writers of the period. (CAN ENGL 16) (A, CSUGE, UC, I)

105 GRAMMAR AND PUNCTUATION
2 units, 2 lecture hours, (Formerly English 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Elements of basic sentence structure including appropriate punctuation. (A)

## 125 WRITING SKILLS FOR COLLEGE

3 units, 4 lecture hours, (Credit/No Credit), (Formerly English A and 25)
PREREQUISITE: Designated score on English placement test or satisfactory completion of English 252.

Development of the process of writing, revising and finishing short papers, including logical development and organization of ideas. Emphasizes avoiding common writing errors; develops reading skills by reading model essays, analyzing rhetorical strategies; develops critical thinking skills by matching the structures of writing to meaning and audience, and by using writing as thinking to explore and express ideas. Meets AA/AS degree requirements for writing. Prepares students for English 1A. Not recommended for students learning English as a second language. (A)

## 126 READING SKILLS FOR COLLEGE

3 units, 4 lecture hours, (Credit/No Credit), (Formerly English 26)
PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 262. Not recommended for students learning English as a foreign language. Not recommended for students with identified learning disabilities.

Advances students' reading skills into college-level proficiencies in the areas of vocabulary usage, literal comprehension, and critical reading skills. Trains students to use various reading and reporting strategies for different writing styles. Emphasizes reading as a problem-solving process. (A)

## 153 ENGLISH FOR NONTRANSFER STUDENTS

3 units, 3 lecture hours, (Formerly English 53)
ADVISORY: Designated score on the English Placement Test or a "Credit" grade in English 252 and/or English 262 as appropriate recommended.

Writing improvement. Interpretive reading. Appreciation of literature and other arts. Not a remedial course. Intended for nontransfer students. Satisfies English requirement for AA/AS degree. Does not establish eligibility for English 1A. (A)

## 159 BUSINESS ENGLISH

2 units, 2 lecture hours, (See also Business \&
Technology 12), (Formerly English 59)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review for business use the basic mechanics of English grammar, parts of speech, sentence structure, punctuation, and capitalization. (A)

## 250 BASIC WRITING

4 units, 5 lecture hours, (Credit/No Credit), (Formerly English 50)
PREREQUISITE: Designated score on English placement test with other relevant criteria. Not recommended for studentslearning English as a foreign language. Not recommended for students with identified learning disabilities.

Getting used to writing. Discovering worthwhile topics. Expressing oneself. Developing understanding that writing is for reading. Beginning to find and correct grammatical errors. Using computer word processors for writing. Prepares students for English 252. Students must satisfactorily complete course work and pass a writing competency test to receive credit for the course.

## 252 WRITING IMPROVEMENT

4 units, 5 lecture hours, (Credit/No Credit), (Formerly English 52)
PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 250. Not recommended for students learning English as a foreign language. Not recommended for students with identified learning disabilities.

Developing writing skills. Understanding, finding, and correcting grammatical errors. Using computer word processors for writing. Prepares students for English 125. Students must satisfactorily complete course work and pass a writing competency test to receive credit for the course.

## 260 BASIC READING

4 units, 5 lecture hours, (Credit/No Credit), (Formerly English 60)
PREREQUISITE: Designated score on English placement test with other relevant criteria recommended. Not recommended for students learning English as a foreign language. Not recommended for students with identified learning disabilities.

Developing comprehension. Determining main ideas and impor-
tant details. Encouraging positive attitudes toward reading. Prepares students for English 262. Students must satisfactorily complete course work and pass a reading competency test to receive credit for the course.

## 262 READING IMPROVEMENT

4 units, 5 lecture hours, (Credit/No Credit), (Formerly English 62)
PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 260. Not recommended for students learning English as a foreign language. Not recommended for students with identified learning disabilities.

Developing vocabulary and reading comprehension skills for courses leading to AA or AS degrees. Fostering positive attitudes toward reading. Prepares students for English 125. Students must satisfactorily complete course work and pass a reading competency test to receive credit for the course.

## 265 REASONING AND DECISION MAKING FOR DAILY LIVING

2 units, 2 lecture hours, (Credit/No Credit), (Formerly English 65)
PREREQUISITE: Eligibility for English 252 and English 262 recommended.

Students will learn to examine and support their opinions, make decisions, and respond to various techniques of propaganda. Examples will be taken from interpersonal communication, television, advertisements, and print media to develop reasoning and decision-making skills necessary for college-level course work.

## 277 READING SKILLS

2 units, 1 lecture hour, 3 lab hours, (Credit/No
Credit), (Repeats = 1), (Formerly English 77)
PREREQUISITE: Designated score on English placement test with other relevant criteria.

Developing comprehension. Determining main ideas and important details. Encouraging positive attitudes toward reading. Prepares students for English 278. Designed for students with communicative and/or learning limitations.

## 278 READING COMPREHENSION

2 units, 1 lecture hour, 3 lab hours, (Credit/No Credit), (Repeats = 1), (Formerly English 78)
PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 277.

Basic reading skills in vocabulary usage, literal comprehension, and critical comprehension. Various strategies for comprehending different types if written materials. Designed for students with communicative and/or learning disability.

279 BEGINNING SPELLING, VOCABULARY, PENMANSHIP
1 unit, 3 lab hours, (Credit/No Credit), (Repeats = 1), (Formerly English 79)
PREREQUISITE: None.
Spelling, vocabulary building, and penmanship at the 3rd to 6th grade level. Designed for students with communicative and/or learning difficulties.

## 280 ADVANCED SPELLING AND VOCABULARY

1 unit, 3 lab hours, (Credit/No Credit), (Repeats = 1), (Formerly English 80)
PREREQUISITE: None.
An emphasis on spelling and vocabulary building at the 6th to 9th grade level. Designed for students with communicative and/or learning difficulties.

## 281 SENTENCE AND GRAMMAR WRITING

2 units, 1 lecture hour, 3 lab hours, (Credit/No
Credit), (Repeats = 1), (Formerly English 81)
PREREQUISITE: Designated score on English placement test with other relevant criteria.

Getting used to writing. Discovering worthwhile topics. Expressing oneself. Developing understanding that writing is for reading. Beginning to find and correct grammatical errors. Using computer word processors for writing. Prepares students for English 282. Designed for students with communicative and/or learning difficulties.

## 282 PARAGRAPH WRITING

2 units, 1 lecture hour, 3 lab hours, (Credit/No
Credit), (Repeats = 1), (Formerly English 82)
PREREQUISITE: Designed score on English placement test with other relevant criteria.

Developing writing skills. Understanding, finding, and correcting grammatical errors. Using computer word processors for writing. Prepares students for English 125. Designed for students with communicative and/or learning limitations.

## ENGLISH AS A SECOND LANGUAGE (ESL)

## 67 WRITING AND GRAMMAR

4 units, 4 lecture hours, (Formerly English 54D)
PREREQUISITE: Use of language other than English as a primary language. Designated score on the ESL placement test or completion of ESL 265W (formerly English 54C and ESL 65) with a grade of "C" or better.

Advanced grammar and writing. Designed to prepare speakers of other languages for English 1A. Meets AA/AS degree requirement for writing. (A, CSU)

## 68 READING FOR ESL COLLEGE STUDENTS

4 units, 4 lecture hours
PREREQUISITE: Use of language other than English as a primary language. Designated score on ESL placement test or completion of ESL 265R with a grade of " $C$ " or better.

Advances students' skills for mainstream college classes in the areas of vocabulary usage, literal comprehension, critical reading, and cultural inferences. Trains students to use various reading strategies for different organizational patterns of text. Emphasizes reading as a problem-solving process. (A, CSU)

## 170 PREPARATORY ENGLISH SKILLS FOR THE POLICE ACADEMY

3 units, 4.5 lecture hours, (12 weeks), (Credit/No
Credit), (Repeats = 3), (Formerly ESL 70)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed to prepare students to take the FCC Police Academy Entrance Exam. Introduces elements of law enforcement report writing. Develops reading, vocabulary, and grammar appropriate to the law enforcement profession. Introduces proper English spelling conventions and test taking strategies. (A)

## 262 BASIC ACADEMIC STUDY SKILLS

3 units, 3 lecture hours, (Credit/No Credit), (Formerly English 55A and ESL 62)
PREREQUISITE: Use of language other than English as primary language. Designated score on ESL placement test.

Beginning grammar, writing, reading, vocabulary, listening, speaking, and study skills. Designed to prepare speakers of other languages for ESL 263W (formerly English 54A and ESL 63) and 263R.

## 263R READING AND VOCABULARY

4 units, 4 lecture, (Credit/No Credit), (Formerly ESL 63R)
PREREQUISITE: Use of language other than English as a primary language. Designated score on ESL placement test or completion of ESL 262 (formerly English 55A) with a grade of " $C$ " or better.

High-beginning to low-intermediate reading, vocabulary and study skills. Designed to prepare speakers of other languages for ESL 64R.

## 263W GRAMMAR AND WRITING

4 units, 4 lecture hours, (Credit/No Credit), (Formerly English 54A and ESL 63 and ESL 63W)
PREREQUISITE: Use of language other than English as primary language. Designated score on ESL placement test or completion of ESL 262 (formerly English 55A) with a grade of " $C$ " or better.

High-beginning to low-intermediate writing, grammar and study skills. Designed to prepare speakers of other languages for ESL 264W.

## 264R READING AND VOCABULARY

4 units, 4 lecture, (Credit/No Credit), (Formerly ESL 64R)
PREREQUISITE: Use of language other than English as a primary language. Designated score on ESL placement test or completion of ESL 263R with a grade of "C" or better.

Intermediate reading, vocabulary and study skills. Designed to prepare speakers of other languages for ESL 265R.

## 264W WRITING AND GRAMMAR

4 units, 4 lecture hours, (Credit/No Credit), (Formerly
English 54B and ESL 64 and ESL 64W)
PREREQUISITE: Use of language other than English as primary language. Designated score on ESL placement test or completion of ESL 263W (formerly English 54A and ESL 63) with a grade of "C" or better.

Intermediate writing, grammar and study skills. Designed to prepare speakers of other languages for ESL 265W.

## 265R READING AND VOCABULARY

4 units, 4 lecture hours, (Credit/No Credit), (Formerly ESL 65R)
PREREQUSITE: Use of language other than English as a primary language. Designated score on ESL placement test or completion of ESL 264R with a grade of "C" or better.

High-intermediate reading, vocabulary and study skills. Designed to prepare speakers of other languages for ESL 68.

## 265W WRITING AND GRAMMAR

4 units, 4 lecture hours, (Credit/No Credit), (Formerly
English 54C and ESL 65 and ESL 65W)
PREREQUISITE: Use of language other than English as a primary language. Designated score on ESL placement test or completion of ESL 264W (formerly English 54B and ESL 64) with a grade of "C" or better.

Advanced-intermediate writing, grammar and study skills. Designed to prepare speakers of other languages for ESL 67.

## ENVIRONMENTAL TECHNOLOGY (ENVT)

FORMERLY ENVIRONMENTAL HAZARDOUS
MATERIALS TECHNOLOGY

51 INTRODUCTION TO ENVIRONMENTAL TECHNOLOGY
3 units, 3 lecture hours, (Formerly EHMT 51)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Ageneral overview of the environmental hazardous materials technology area. The history of pollution leading to current legislation,
environmental effects of pollution, and an overview of the regulatory framework will be presented. Career opportunities in the areas of handling and management of hazardous substances will be discussed. (A, CSU)

## 52 INDUSTRIAL POLLUTION

3 units, 3 lecture hours, (Formerly EHMT 52)
ADVISORY: ENVT 51 recommended.
Industrial processes and their generation of waste streams in seven selected industries: electroplating, metal finishing, and printed circuit board production; oil refining and chemical production; steel production; general manufacturing; printing and graphic reproduction; agriculture; and consumer services. Focuses on raw materials and chemicals used in industry, changes that occur as they move through the industrial process, and the material balance concept of inventory. Applicable regulations will be discussed, and the importance of waste minimization concepts will be stressed. (A, CSU)

## 53 HEALTH EFFECTS

3 units, 3 lecture hours, (Formerly EHMT 53)
ADVISORY: ENVT 52 recommended.
Acute and chronic health effects produced by exposure to chemical, physical, and biological agents. Emphasis will be placed on hazardous materials associated with industrial operations, waste disposal, and remediation sites. Topics include routes of entry, toxic effect, risk control methods for reducing exposure and understanding MSDS. Applicable regulatory framework is discussed. (A, CSU)

## 54 HAZARDOUS WASTE MANAGEMENT APPLICATIONS

4 units, 3 lecture hours, 1 lecture hour arranged per week, (Formerly EHMT 54)
ADVISORY: ENVT 53 recommended.
Overview of hazardous waste regulation with emphasis in generator compliance, site investigation and remediation, permitting, enforcement, and liability. Explains the hazardous waste regulatory framework, introduces the student to a wide variety and types of environmental resources available, and develops research skills in the hazardous waste area. Proper methods of preparing a hazardous waste manifest, labeling of storage containers, sampling and analysis, preparing a Phase I Environmental Audit, and selecting environmental consultants are among the many skills developed. (A, CSU)

## 55 SAFETY AND EMERGENCY RESPONSE

4 units, 3 lecture hours, 1 lecture hour arranged per week, (Formerly EHMT 55)
ADVISORY: ENVT 53 recommended.
Hands-on instruction in safety response to chemical and physical exposures in industrial and field settings. Topicsinclude hazard analysis, contingency planning, housekeeping and safety practices includ-
ing proper use and selection of PPE, site control and evaluation, handling drums and containers, field sampling and monitoring, proper use of instruments, incident response planning, emergency response including field exercises in the use of PAPR and SCBA, and understanding of the ICS system. Course satisfies the requirements for generalized employee training under OSHA (1910.120). (A, CSU)

## 56 HAZARDOUS MATERIALS MANAGEMENT APPLICATIONS

4 units, 3 lecture hours, 1 lecture hour arranged per week, (Formerly EHMT 56)
ADVISORY: ENVT 53 recommended.
Requirements and applications of federal, state, and local laws and regulations relating to hazardous materials. Emphasizes compliance with Department of Transportation, OSHA Hazard Communication, SARATitle III Right-to-Know, Underground Tank, Asbestos, Proposition 65, and Air Toxic Regulations. Provides student with an understanding of the legal framework of hazardous materialslaws and applications of these laws, such as: proper labeling, interpreting MSDS; permitting and monitoring functions, as well as planning and reporting functions. (A, CSU)

## FASHION MERCHANDISING (FM)

## formerly retailing fashion

## 10 PRINCIPLES OF MARKETING

3 units, 3 lecture hours, (See also Marketing 10), (Formerly Retailing Fashion 10)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creative management and research involving pricing, promotion, place and physical distribution of profitable products. (A, CSU)

## 14 RETAILING

3 units, 3 lecture hours, (See also Marketing 14), (Formerly Retailing Fashion 14)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the basic retail store operation functions of personnel management, merchandise buying, merchandise promotion, security, and careers. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on thejob, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to fashion merchandising. Learning objectives established specific to fashion merchandising. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 TEXTILES

3 units, 3 lecture hours, 1 lab hour, (See also Home
Economics 20), (Formerly Home Economics/Retailing Fashion 11)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introductory analysis of textile fibers, yarns, fabrications, dyestuffs, and finishes. Emphasis on selection, use, performance, suitability, and care of textiles for apparel and home furnishings. Legislation, labelling, and simple testing and evaluation of performance. Handson experience testing fiber characteristics. This course is appropriate for students in fashion merchandising apparel construction, and interior design, as well as for any consumers who do laundry. (A, CSU, UC)

## 21 SALESMANSHIP

3 units, 3 lecture hours, (See also Marketing 11),
(Formerly Retailing Fashion 21)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Personal selling and the devel opment of techniques for a successful sales personality; buying motives, required product knowledge, and the selling process. Career opportunities in the sales field. (A, CSU)

## 22 FASHION ANALYSIS AND WARDROBE SELECTION

3 units, 3 lecture hours, (Formerly Retailing Fashion 8)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The function of apparel and its relationship to society and the individual. The sociological, psychological, physical, and aesthetic aspects of apparel are analyzed. Applied problems are included to differentiate individual style needs based upon body proportions, lifestyle, personal coloring, and fashion personality. (CAN HEC 20) (A, CSU)

## 25 PROFESSIONAL IMAGE

3 units, 3 lecture hours, (Formerly Retailing Fashion 12)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Methods for the analysis, selection, coordination, and care of apparel and accessories suitable for the work environment. Topics include
psychological and sociological influences, needs assessment, color and fabric considerations, fit and alterations, grooming, and business etiquette. Specific information for both men and women is presented. (A, CSU)

## 27 INTRODUCTION TO FASHION INDUSTRY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Careers in the fashion industry including those related to the manufacturing, distribution, and merchandising of consumable goods. Methods of predicting consumer demand, buying, pricing, promoting, and coordination. Strongly recommended as the initial course for Fashion Merchandising majors. (A, CSU).

## 28 VISUAL MERCHANDISING

3 units, 2 lecture hours, 2 lab hours, (See also
Marketing 17), (Formerly Retailing Fashion 17)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Modern display techniques, equipment, materials, and analysis of current display methods as they apply to creating a store's image. Laboratory exercises to include planning, executing, and evaluating a variety of displays including signage, cases, windows, and banners. Field trips. (A, CSU)

## 29 MODELING AND FASHION PROMOTION

3 units, 2 lecture hours, 3 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The psychology of fashion, functions of models and fashion coordinators in retail and wholesale fields, and techniques and procedures for presenting fashion. Observation, planning, and participation in an area of the fashion industry (i.e., fashion show or special event). Modeling techniques to develop visual poise through proper posture, movement, and gesture. Field trips. (A, CSU).

## 37 FASHION HISTORY

3 units, 3 lecture hours, (See also Theatre Arts 37),
(Formerly Retailing Fashion 16 and 26)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Surveys the evolution of apparel styles through history from Egyptian to contemporary periods. Relation of recurring style trends to contemporary fashions. Includes sociological, economic, and political factors affecting apparel through the centuries. (A, CSU)

## FILM (FILM)

## 1 INTRODUCTION TO FILM

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Cinematography, editing, and sound used to tell stories and convey meaning. Film as literature. Main issues of film theory and criticism. (A, CSU-GE, UC, I)

## 2A HISTORY OF FILM TO 1965

3 units, 3 lecture hours, (Formerly Film 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Main currents of U.S. and foreign films produced before 1965. Analysis of cinematography, editing, sound, story, and film genres. Film 1 is not a prerequisite for this course. (A, CSU-GE, UC)

## 2B HISTORY OF FILM AFTER 1965

3 units, 3 lecture hours, (Formerly Film 1B)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Main currents of U.S. and foreign films produced after 1965. Analysis of cinematography, editing, sound, story, and film genres. Neither Film 1 nor Film 2A is a prerequisite for this course. (A, CSU-GE, UC)

## 4 EXPLORING FILM

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Semester emphasis rotated among filmmaking, film and society, world and ethnic cinema, film genres, or other topics. Neither Film 1 nor 2A nor 2B is a prerequisite for this course. (A, CSU, UC)

## FIRE TECHNOLOGY (firet)

## 1 FIRE PROTECTION ORGANIZATION

3 units, 8.4 lecture hours, (7 weeks), (Formerly Fire Science 1)
PREREQUISITE: None.
An introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as a part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics. (A, CSU)

## 2 FIRE PREVENTION TECHNOLOGY

3 units, 8.4 lecture hours, (7 weeks), (Spring), (Formerly Fire Science 6)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The history and philosophy of fire prevention, organization, and operation of a fire prevention bureau; use of fire codes; identification and correction of fire hazards; the relationship of fire prevention with fire safety education; and understanding of detection and suppression systems. (A, CSU)

## 3 FIRE PROTECTION EQUIPMENT AND SYSTEMS

3 units, 8.4 lecture hours, (7 weeks), (Spring),
(Formerly Fire Science 7)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

The features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. (A, CSU)

4 BUILDING CONSTRUCTION FOR FIRE PROTECTION
3 units, 8.4 lecture hours, (7 weeks), (Spring),
(Formerly Fire Science 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Components of building construction that relate to fire safety. Elements of construction and design of structures as key factors when inspecting buildings, preplanning fireoperations, and operating at fires. Development and evolution of building and fire codes in relationship to past fires in residential, commercial, and industrial occupancies. (A, CSU)

## 5 FIRE BEHAVIOR AND COMBUSTION

3 units, 8.4 lecture hours, (7 weeks), (Spring), (Formerly Fire Science 3)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Theory and fundamentals of how and why fires start, spread, and are controlled; fire chemistry and physics, fire characteristics of materials, extinguishing agents and fire control techniques. (A, CSU)

## 6 HAZARDOUS MATERIALS

3 units, 8.4 lecture hours, ( 7 weeks), (Spring),
(Formerly Fire Science 4)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Hazardous materials and their physical properties; use in industry; characteristics when involved in spills, fire and accidents; infor-

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mation regarding emergency procedures, legal requirements and compliance to regulations; health effects and treatment; fire department protocols and responsibilities. (A, CSU)

## 8 FIRE HYDRAULICS

3 units, 8.4 lecture hours, ( 7 weeks) (Spring), (Formerly Fire Science 8)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Review of applied mathematics; hydraulics laws as applied to the fire service; application formulas and mental calculation to hydraulics and water supply problems; types of pumping apparatus; fire pump theory; operation of fire pumps; pump testing. (A, CSU)

## 9 FIRE FIGHTING PRACTICES

3 units, 8.4 lecture hours, (7 weeks), (Spring),
(Formerly Fire Science 9)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground; fire fighting strategy and tactics; methods of attack; pre-planning fire problems. (A, CSU)

## 13 ARSON AND FIRE INVESTIGATION TECHNOLOGY

3 units, 8.4 lecture hours, ( 7 weeks), (Spring),
(Formerly Fire Science 13)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to arson and incendiarism, related laws, and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, and interviewing and detaining witnesses. Procedures in handling juveniles. Court procedure and testimony. (A, CSU)

## 130 BASIC FIRE ACADEMY

24 units, 10.38 lecture hours, 15.56 lab hours, (31
weeks), (Formerly Fire Science 30 and Fire
Technology 30)
PREREQUISITE: Medical exam conducted by a California licensed physician, including resting EKG and physician's written explanation of EKG printout. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Prepares students for entry-level employment as a firefighter. Provides the student with entry-level skills in fire suppression, emergency medical care, hazardous materials spills, fire prevention, fire investigation, vehicle extrication, urban search and rescue, fire chemistry, fire apparatus driving, confined space rescue operations, incident command and an intensive physical fitness training program. This course is offered on an intensive daytime format or an extended evening and weekend format. (A)

## 131 EMERGENCY MEDICAL TECHNICIAN I

8 units, 8 lecture hours, 4 lab hours, 24 additional lab hours arranged, (Formerly Fire Science 31 and Fire Technology 31)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed to prepare personnel in the fire, life safety, and related fields to render prehospital basic life support including, but not limited to, advanced first aid and cardiopulmonary life support for the ill or injured at the scene of an emergency in preparation for transport in accordance with policies and procedures established by the Emergency Medical Services of the Fresno County Health Department. (A)

## 150A FIRE INSTRUCTOR 1A

2 units, 8.4 lecture hours, ( 5 weeks), (Formerly Fire
Science and Fire Technology 50A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Identification of training needs; utilization of the occupational analysis; determination of measurable student objectives in learning manipulative skills; development of levels of instruction; preparation and presentation of manipulative lesson plans; preparation of supplementary instruction sheets; methods of teaching manipulative skills. One of the California Fire ServiceTraining and Education System classes needed for Fire Officer certification. (A)

## 150B FIRE INSTRUCTOR 1B

2 units, 8.4 lecture hours, ( 5 weeks), (Formerly Fire
Science and Fire Technology 50B)
ADVISORY: Fire Technology 150A, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Identification of training needs with the emphasis on technical subjects; identification of course objectives and content; establishment of levels of instruction; development of measurable student performance goals; development of technical lesson plans; teaching technical subjects. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 150C FIRE MANAGEMENT 1

2 units, 8.4 lecture hours, ( 5 weeks), (Formerly Fire Science and Fire Technology 50C)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Management styles of leadership; promoting group cooperation; types of verbal orders; interpreting and implementing policies; methods of dealing with subordinates; duties and responsibilities of rank; line and staff functions; emotional and behavioral characteristics of individuals and working groups; group behavior within the organization; personnel procedures; types of corrective action, personnel inter-
views, and counseling. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 150D FIRE COMMAND 1A

2 units, 8.4 lecture hours, ( 5 weeks), (Formerly Fire
Science and Fire Technology 50D)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed to provide emergency personnel with information and experience in command and control techniques used at the scene of an emergency. Emphasis on decision making, the act of commanding, the authority or right to command, the personnel organization structure or area under an individual commander, and the preplanning and training requirements for effective performance as an officer. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 150E FIRE COMMAND 1B

2 units, 8.4 lecture hours, (5 weeks), (Formerly Fire Science and Fire Technology 50E)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed to provide fire emergency personnel with information and experience in command and control techniques used at the scene of a hazardous materials emergency. Emphasis on decision making, the act of commanding, the authority or right to command, the personnel, organization, structure or area under an individual commander, and the preplanning and training requirements for effective performance as an officer. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 150F FIRE INVESTIGATION 1A

2 units, 8.4 lecture hours, ( 5 weeks), (Formerly Fire Science and Fire Technology 50F)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fire behavior and building construction and their influence on fire cause and origin investigation; investigative techniques and skills required to perform incendiary, accidental, fatal, vehicle, wildland, juvenile, and incendiary investigations; summary report writing techniques; investigative tools required to collect, document, and preserve evidence. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 150G FIRE PREVENTION 1A

2 units, 8.4 lecture hours, (5 weeks), (Formerly Fire Science and Fire Technology 50G)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Organization and function of fire prevention; fire and life safety inspections; codes and ordinances relating to the use and storage of flammable, combustible, toxic, reactive, and radioactive materials; engineering and enforcing a solution of a fire hazard; fire extinguisher and fixed systems requirements. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 150H FIRE PREVENTION 1B

2 units, 8.4 lecture hours, ( 5 weeks), (Formerly Fire
Science and Fire Technology 50H)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Relationship of life safety codes and requirements to building construction principles and building occupancy classifications; fire rated construction; fire doors, windows, and shutters; stairwells and smoke proof enclosures; flame spread, smoke production, and interior finish considerations for various occupancies; exiting and egress requirements; basic electrical theory, electrical hazards, and inspection considerations; basic heat, smoke, and flame detection systems; sprinkler and fixed protection systems; municipal/residential alarm systems; fire drills and emergency evacuation procedures; inspection reports and filing techniques; processing of plans and specifications; handling fire prevention complaints. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 150J FIRE INVESTIGATION 1B

2 units, 8.4 lecture, ( 5 weeks), (Formerly Fire
Technology 50J)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Summary of state laws, legal principles, terms and codes; methods of fire investigation and surveillance involving both adults and juveniles; methods and sources of information needed to determine the identity and cause of death of a body found at the fire scene; in-depth information regarding the establishment of cause and origin of smoking materials and electrically caused fires; identification and interpretation of burn patterns found on and around different types of building construction characteristics and components; general courtroom and trial procedures; case development, examination of witnesses; effective testimony. This is one of the California Fire Service Training and Education System classes needed for Fire Investigator I certification. (A)

## 261 EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER

1 unit, 1.33 lecture hours, (Repeats = 3), (Formerly Fire Science 61 and Fire Technology 61)
PREREQUISITE: Valid Emergency Medical Technician 1 course completion certificate.

Review of the topics covered in Fire Technology 131, changes in
emergency medical protocol, and updates on new procedures authorized for use in the field. Meets the requirements for recertification as an EMT 1 that are set forth by the State of California and Fresno County.

## 261A EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER

(FIRE SERVICE)
.1-. 5 unit, .2-. 5 lecture hours, (Repeats = 3), (Formerly Fire Technology 61A)
PREREQUISITE: Valid Emergency Medical Technician 1 course completion certificate.

Review of topics covered in Fire Technology 131, changes in emergency medical protocol, and updates on new procedures authorized for use in the field. Completion of this course results in student recertification as an Emergency Medical Technician 1 in Fresno County and the Sate of California.

## 261B EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER

(FIRE SERVICE)
.1-. 5 units, .2-. 5 lecture hours, (Repeats = 3), (Formerly Fire Technology 61B)
PREREQUISITE: Valid Emergency Medical Technician 1 course completion certificate.

Review of topics covered in Fire Technology 131, changes in emergency medical protocol, and updates on new procedures authorized for use in the field. Completion of this course results in student recertification as an Emergency Medical Technician 1 in Fresno County and the State of California.

## 261C EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER

 (FIRE SERVICE).1-. 5 units, .2-. 5 lecture hours, (Repeats = 3), (Formerly Fire Technology 61C)
PREREQUISITE: Valid Emergency Medical Technician 1 course completion certificate.

Review of topics covered in Fire Technology 131, changes in emergency medical protocol, and updates on new procedures authorized for use in the field. Completion of this course results in student recertification as an Emergency Medical Technician 1 in Fresno County and the State of California.

## 261D EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER

 (FIRE SERVICE).1-. 5 units, .2-. 5 lecture hours, (Repeats = 3), (Formerly Fire Technology 61D)
PREREQUISITE: Valid Emergency Medical Technician 1 course completion certificate.

Review of topics covered in Fire Technology 131, changes in emer gency medical protocol, and updates on new procedures authorized for
use in the field. Completion of this course results in student recertification as an Emergency Medical Technician 1 in Fresno County and the State of California.

## FOOD AND NUTRITION (FN)

## 1 PRINCIPLES OF FOOD PREPARATION

3 units, 2 lecture hours, 2 lab hours, (Formerly Home Economics 1)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Basic food science and food preparation techniques. Emphasizes nutrition values, food safety, sanitation, food product standards, and aesthetic appeal. (CAN FCS 8) (A, CSU)

## 35 NUTRITION AND HEALTH

3 units, 3 lecture hours, (Formerly Home Economics 60)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Relationship of diet to physical and emotional health; nutrients; diet patterns throughout the life cycle. Optimal nutrition to reduce the risks of cancer, heart disease, allergies, and other diseases. Social, psychological, and cultural dictates which affect food selection and heal th. Personal strategies to develop a nutrition plan for better health. Not open to students with credit in FN 40 . (A, CSU)

## 40 NUTRITION

3 units, 3 lecture hours, (Formerly Home Economics
40)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Nutrients and their ingestion, digestion, absorption, transport, metabolism, interaction, storage, and excretion. The relationship of diet to physical and emotional health, diet patterns through the life cycle, consumer concern, and recent developments. (CAN FCS 2) (A, CSU, UC)

## 41 SPORTS NUTRITION

2 units, 2 lecture hours, (Formerly Home Economics 41)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Effect of diet on physical performance. Planning diets to meet needs of those involved in sports and others interested in physical fitness activities. Current trends are explored. Recommended for physical education and allied health majors and individuals interested in the study of nutrition as part of their personal fitness program. (A, CSU)

## 42 CHILD NUTRITION

3 units, 3 lecture hours, (See also Child Development 42), (Formerly Home Economics 42)

ADVSORY: Food and Nutrition 40 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Nutritional requirements of infants and children from conception through adolescence. Nutritional needs of pregnant and lactating women. Feeding infants and children for optimum physical and mental development. Child and maternal nutrition programs. Social and cultural influences affecting child and maternal nutrition. (A, CSU)

## 43 WOMEN'S NUTRITION

2 units, 2 lecture hours, (See also Women's Studies
43), (Formerly Home Economics 43)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The relationship between nutrition and various contemporary health issues affecting women. Significance of nutrition as it relates to the health of women during specific stages of the life cycle. Current trends and research. (A, CSU)

## 45 NUTRITION AND DIET THERAPY

3 units, 3 lecture hours, (Formerly Home Economics 5)
ADVISORY: FN 40 or equivalent strongly recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Nutrition care in disease and abnormal metabolic states; therapeutic diets and patient care; nutritional assessment techniques. (A, CSU)

## FOOD SERVICE MANAGEMENT (FsM)

 FORMERLY DIETETIC SERVICE AND FOOD SERVICES
## 11 FOOD SERVICE SUPERVISION

2 units, 2 lecture hours, (Formerly Dietetic Services
11)

ADVISORY: Food Service Management 15, eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and concurrent enrollment in Food Service Management 19 recommended.

Current methods of supervision and leadership which are applicable to the food service industry. Methods and techniques of recruitment, selection, training and evaluation of personnel. Record maintenance, enforcement of safety and sanitary standards; supervision of food service employees. (A, CSU)

## 15 FOOD PRODUCTION MANAGEMENT

2 units, 2 lecture hours, (Formerly Dietetic Services
15)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Food Service Management 35 and concurrent enrollment in Food Service Management 19 recommended.

Effective management of time, staff, equipment in quantity food preparation. Supervisor responsibilities. Standards and criteria; menu planning; systems of production. (A, CSU)

19 OCCUPATIONAL WORK EXPERIENCE
1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to food service management. Learning objectives established specific to food service management. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 25 FOOD AND BEVERAGE PURCHASE AND CONTROL

2 units, 2 lecture hours, (Formerly Food Services 66)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 50 recommended.

Food purchasing policies and procedures with respect to budget. Basic marketing functions and selection of food products for commercial and institutional food service operations. Emphasis on developing standard purchase specification for various food service operations and on procedures for buying, receiving, storing and inventory management. (A, CSU)

35 FOOD SERVICES, SANITATION, SAFETY AND EQUIPMENT 2 units, 2 lecture hours, (Formerly Dietetic Services 35).

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Food service employees' role in preventing foodborne illness. Supervisor's responsibilities in maintaining standards of health and safety. Selection and use of food service equipment for optimum safety and sanitation and to meet federal, state, and local regulations. Exam given for the National Institute for the Food Service Industry Certificate. (A, CSU)

## 38 QUANTITY FOOD PREPARATION

3 units, 2 lecture hours, 4 lab hours, (Formerly Dietetic Services 58)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Food Service Management 35 and Food and Nutrition 1 recommended.

Quantity food preparation with emphasis on recipe standardization; use of equipment and time; application of the principles of sanitation and safety; the attractive service of food. (A, CSU)

## 63 CHILD NUTRITION PROGRAM MANAGEMENT

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Overview of the components of model child nutrition programs including the application of current child health and nutrition principles, nutrition education practice, marketing procedures, communication strategies, and operation management skills. Management of nutritionally and fiscally sound child nutrition programs. Effective use of community and school partnership. (A, CSU)

## 144 PRESENTING SERVICE FOR FOOD SERVICE <br> PROFESSIONALS

2 units, 3 lecture hours, (12 weeks), (Formerly Food
Service Management 44)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Techniques, attitude, education and demeanor required for successful food service operations. (A)

## 146 ELEMENTARY FOOD SERVICE COMPUTATION I

1.5 units, 2 lecture hours, (12 weeks), (Formerly

Food Service Management 46)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic math principles used daily in the food service and hospitality industry. Mathematical principles used in commercial food production and the application of these computational skills to food service. Word problems and examples exclusive to food service including the study of recipe conversion and yields, production formulas, weights and measures, the metric system and recipe and food cost analysis. (A)

## 147 ELEMENTARY FOOD SERVICE COMPUTATION II

1.5 units, 2 lecture hours, (12 weeks), (Formerly

Food Service Management 47)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Basic math principles used daily in the food service and hospitality industry. Mathematical principles use d in commercial food production and the application of these computational skills to food ser-
vice. Word problems and examples exclusive to food service including the study of recipe conversion and yields, production formulas, weights and measures, the metric system and recipe and food cost analysis. (A)

## 148 NUTRITION FOR THE FOOD SERVICE PROFESSIONAL

2 units, 3 lecture hours, (12 weeks), (Formerly Food Service Management 48)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Diet and nutrients as they relate to food preparation in the hospitality industry. (A)

## 149 FOOD SERVICE INTERNSHIP

3 units, 1.5 lecture hours, 10 lab hours, (12 weeks),
(Repeats = 2), (Formerly Food Service Management
49)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Supervised work experience in an approved food service facility. (A)

## 160 BASIC SKILLS: BASIC FOODS

3 units, 2.5 lecture hours, 1.5 lab hour, (Formerly
Food Services 54 and Food Service Management 60)
ADVISORY: Eligibility for English 125 and 126 or English 153 or
ESL 67 and 68 recommended.
Overview of basic preparation skills in preparing and serving nutritious and acceptable foods in schools, child care centers, and family day care programs. (A)

161 INTRODUCTION TO THE CHILD NUTRITION PROGRAM
2 units, 6 lecture hours, ( 6 weeks), (Formerly Food
Service Management 61)
PREREQUISITE: None.
Overview of entry level skills in the child nutrition program including sanitation and safety, basic nutrition principles, record keeping, and food production. (A)

162 MENU PLANNING FOR CHILD NUTRITION
3 units, 3 lecture hours, (Repeats $=1$ ), (Formerly
Food Services 62 and Food Service Management 62)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 and Food Service Management 60 recommended.

Overview of menu planning for child nutrition programs including menu planning options, nutrition standards, menu writing, student preferences, marketing and evaluation. Procedures for developing standardized products, budgetary controls, and evaluating procurement and delivery systems. Meets Federal, State, and Local Standards. (A)

## FOREIGN LANGUAGES

## AMERICAN SIGN LANGUAGE (ASL)

## 1 BEGINNING AMERICAN SIGN LANGUAGE

4 units, 4 lecture hours, (Formerly ASL 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester American Sigm Language and its usefulness as a means of communication with the deaf and hard of hearing. An introduction to the culture of the deaf community and the literary and artistic contribution of this culture. Designed for students with no knowledge of ASL. (A, CSU-GE, UC)

## 2 HIGH-BEGINNING AMERICAN SIGN LANGUAGE,

 4 units, 4 lecture hours, (Formerly ASL 1B)PREREQUSITE: American Sign Language 1 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester beginning American Sign Language and its usefulness as a means of communication with the deaf and hard of hearing. An introduction to the culture of the deaf community and the literary and artistic contribution of this culture. (A, CSU-GE, UC)

## 3 INTERMEDIATE AMERICAN SIGN LANGUAGE

4 units, 4 lecture hours, (Formerly ASL 2A)
PREREQUSITTE: American Sign Language 2 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Third semester American Sign Language and its usefulness as a means of communication with the deaf and hard of hearing. An introduction to the culture of the deaf community and the literary and artistic contribution of this culture. (A, CSU-GE)

## 4 HIGH-INTERMEDIATE AMERICAN SIGN LANGUAGE

4 units, 4 lecture hours, (Formerly ASL 2B)
PREREQUSITE: American Sign Language 3 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fourth semester American Sign Language. A formal method of thinking, organizing, receiving and sending non-verbal messages in American Sign Language. The cultural context of the community for which American Sign Language serves as the primary language. (A, CSU-GE)

## ARMENIAN (ARMEN)

## 1 BEGINNING ARMENIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
Armenian 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester beginning Armenian listening, speaking, grammar, writing, reading and vocabulary. Designed for students who have no knowledge of Armenian. (A, CSU-GE, UC)

## 2 HIGH-BEGINNING ARMENIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
Armenian 1B)
PREREQUISITE: Armenian 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68.

Second semester Armenian listening, speaking, grammar, writing, reading and vocabulary. (Offered infrequently) (A, CSU-GE, UC)

## 3 INTERMEDIATE ARMENIAN

4 units, 3 lecture, 2 lab
ADVISORY: Eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

Third semester Armenian listening, speaking, grammar, reading, writing, and vocabulary. (A, CSU, UC, I)

## CHINESE (Chin)

## 1 BEGINNING CHINESE

4 units, 3 lecture hours, 2 lab hours, (generally
evening only), (Formerly Chinese 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester Chinese listening, speaking, grammar, writing, reading, and vocabulary. Designed for students who have no knowledge of Chinese. (CAN CHIN 2) (A, CSU-GE, UC)

## 2 HIGH-BEGINNING CHINESE

4 units, 3 lecture hours, 2 lab hours, (generally
evening only), (Formerly Chinese 1B)
PREREQUISITE: Chinese 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester Chinese listening, speaking, grammar, writing, reading, and vocabulary. (CANCHN4) (A, CSU-GE, UC)

## FRENCH (FRENCH)

1 BEGINNING FRENCH
4 units, 3 lecture hours, 2 lab hours, (Formerly
French 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester French listening, speaking, grammar, writing, reading, and vocabulary. Designed for students who have no knowledge of French. (CAN FREN2) (A, CSU-GE, UC)

## 2 HIGH-BEGINNING FRENCH

4 units, 3 lecture hours, 2 lab hours, (Formerly
French 1B)
PREREQUISITE: French 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester French listening, speaking, grammar, reading, writing, and vocabulary. (CAN FREN 4) (A, CSU-GE, UC)

## 3 INTERMEDIATE FRENCH

4 units, 3 lecture hours, 2 lab hours, (Formerly
French 2A)
PREREQUISITE: French 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Third semester French listening, speaking, grammar, reading, writing, and vocabulary. (CAN FREN 8) (A, CSU-GE, UC, I)

## 4 HIGH-INTERMEDIATE FRENCH

4 units, 3 lecture hours, 2 lab hours, (Formerly
French 2B)
PREREQUISITE: French 3. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fourth semester French listening, speaking, grammar, reading, writing, and vocabulary. (CAN FREN 10) (A, CSU-GE, UC, I)

## GERMAN (GERMAN)

## 1 BEGINNING GERMAN

4 units, 3 lecture hours, 2 lab hours, (Formerly German 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester German listening, speaking, grammar, writing, reading, and vocabulary. Designed for students who have no knowledge of German. (CAN GERM 2) (A, CSU-GE, UC)

## 2 HIGH-BEGINNING GERMAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
German 1B)
PREREQUISITE: German 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester German listening, speaking, grammar, reading, writing, and vocabulary. Designed for students who have no knowledge of German. (CAN GERM 4) (A, CSU-GE, UC)

## 3 INTERMEDIATE GERMAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
German 2A)
PREREQUISITE: German 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Third semester German listening, speaking, grammar, reading, writing, and vocabulary. Designed for students who have no knowledge of German. (CAN GERM 8) (A, CSU-GE, UC, I)

## 4 HIGH-INTERMEDIATE GERMAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
German 2B)
PREREQUSSITE: German 3. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fourth semester German listening, speaking, grammar, reading, writing, and vocabulary. Designed for students who have no knowledge of German. (CAN GERM 10) (A, CSU-GE, UC, I)

## HMONG (HMONG)

## 1 BEGINNING HMONG

4 units, 3 lecture hours, 2 lab hours, (Formerly Hmong 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester Hmong listening, speaking, grammar, writing, reading, and vocabulary. Designed for students who have no knowledge of Hmong. (A, CSU-GE, UC)

## 2 HIGH-BEGINNING HMONG

4 units, 3 lecture hours, 2 lab hours, (Formerly
Hmong 1B)
PREREQUISITE: Hmong 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester Hmong listening, speaking, grammar, reading, writing, and vocabulary. (A, CSU-GE, UC)

## JAPANESE (JAPAN)

## 1 BEGINNING JAPANESE

4 units, 3 lecture hours, 2 lab hours, (Formerly Japanese 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester Japanese listening, speaking, grammar, writing, reading and vocabulary. Designed for students who have no knowledge of Japanese. (CANJAPN 2) (A, CSU-GE, UC)

## 2 HIGH-BEGINNING JAPANESE

4 units, 3 lecture hours, 2 lab hours, (Formerly Japanese 1B)
PREREQUSITE: Japanese 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester Japanese listening, speaking, grammar, writing, reading and vocabulary. Designed for students who have no knowledge of Japanese. (CANJAPN 4) (A, CSU-GE, UC)

## RUSSIAN (RUSS)

## 1 BEGINNING RUSSIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
Russian 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester Russian listening, speaking, grammar, writing, reading, and vocabulary. Designed for students who have no knowledge of Russian. (CAN RUSS 2) (A, CSU-GE, UC)

## 2 HIGH-BEGINNING RUSSIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly Russian 1B)
PREREQUISITE: Russian 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester Russian listening, speaking, grammar, writing, reading, and vocabulary. (CAN RUSS 4) (A, CSU-GE, UC)

## 3 INTERMEDIATE RUSSIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
Russian 2A)
PREREQUISITE: Russian 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Third semester Russian listening, speaking, grammar, writing, reading, and vocabulary. (CAN RUSS 8) (A, CSU-GE, UC, I)

## 4 HIGH-INTERMEDIATE RUSSIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly Russian 2B)
PREREQUISITE: Russian 3. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fourth semester Russian listening, speaking, grammar, writing, reading, and vocabulary. (CANRUSS 10) (A, CSU-GE, UC, I)

## SPANISH (SPAN)

1 BEGINNING SPANISH
4 units, 3 lecture hours, 2 lab hours, (Formerly Spanish 1A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester Spanish listening, speaking, grammar, writing, reading, and vocabulary. Designed for students who have no knowledge of Spanish. Not open to students with credit in Spanish 3NS or 4NS. (CAN SPAN 2) (A, CSU-GE, UC)

## 2 HIGH-BEGINNING SPANISH

4 units, 3 lecture hours, 2 lab hours, (Formerly
Spanish 1B)
PREREQUISITE: Spanish 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester Spanish listening, speaking, grammar, reading, writing, and vocabulary. Not open to students with credit in Spanish 3NS or 4NS. (CAN SPAN 4) (A, CSU-GE, UC)

## 3 INTERMEDIATE SPANISH

4 units, 4 lecture hours, (Formerly Spanish 2A)
PREREQUISITE: Spanish 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Third semester Spanish listening, speaking, grammar, reading, writing, and vocabulary. (CAN SPAN 8) (A, CSU-GE, UC, I)

## 3NS SPANISH FOR SPANISH SPEAKERS

4 units, 4 lecture hours, 1 lab hour, (Formerly
Spanish 21)
PREREQUISITE: A basic speaking knowledge of Spanish as determined by an oral interview in Spanish. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed for the student with a basic life experience using the Spanish language. Development of correct grammar, correction of speech habits, and improving vocabulary and skills in reading and writing. Hispanic literature and culture. Conducted in Spanish. Not open to students with credit in Spanish 3. (A, CSU-GE, UC)

## 4 HIGH-INTERMEDIATE SPANISH

4 units, 3 lecture hours, 2 lab hours, (Formerly
Spanish 2B)
PREREQUISITE: Spanish 3. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fourth semester Spanish listening, speaking, grammar, reading, writing, and vocabulary. (CAN SPAN 10) (A, CSU-GE, UC, I)

## 4NS SPANISH FOR SPANISH SPEAKERS

4 units, 4 lecture hours, 1 hour lab, (Formerly
Spanish 22)
PREREQUISITE: Spanish 3NS or a basic speaking knowledge of Spanish as determined by an oral interview in Spanish. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Continuation of Spanish 3NS. Designed for the student with a basic life experience using the Spanish language. Development of correct grammar, correction of speech habits, and improving vocabulary and skills in reading and writing. Hispanic literature and culture. Conducted in Spanish. Not open to students with credit in Spanish 4. (A, CSU-GE, UC)

5 THE SHORT STORY: MEXICO, SPAIN, AND THE U.S.
3 units, 3 lecture hours, 1 hour lab, (Formerly
Spanish 3A)
PREREQUISITE: Spanish 4. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Aselection of Hispanic short stories, culture and civilization. Continued development of Spanish language skillsin reading, writing and speaking. Reading and discussing articles and short stories and viewing and discussing films. Includes presentation of oral and written reports. Emphasis on U.S., Mexico, and Spain. (A, CSU-GE, UC, I)

## 6 THE SHORT STORY: LATIN AMERICA

3 units, 3 lecture hours, 1 hour lab, (Formerly
Spanish 3B)
PREREQUISITE: Spanish 4. (Spanish 5 is not a prerequisite to Spanish 6.) ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Aselection of Hispanic short stories, culture and civilization. Continued development of Spanish language skillsin reading, writing, and speaking. Reading and discussing articles and short stories and viewing and discussing films. Includes presentation of oral and written reports. Emphasis on Latin America. (A, CSU-GE, UC, I)

## 7 ADVANCED SPANISH: COMPOSITION AND GRAMMAR

3 units, 3 lecture hours, 1 hour lab
PREREQUISITE: Spanish 4 or 4NS. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

In depth development of Spanish writing and grammar. Designed for advanced students of Spanish who want to improve their writing skills. (A, CSU, UC)

## 8 ADVANCED SPANISH CONVERSATION

3 units, 3 lecture hours, 1 lab hour
PREREQUSITE: Spanish 4 or 4NS.
In-depth development of Spanish oral skills. Designed for advanced students of Spanish who want to improve their ability to communicate orally with people in different language situations. (A, CSU, UC)

## 10 MANY MEXICOS: A CULTURAL OVERVIEW

1 unit, 1 lecture hour
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Culture of modern Mexico and its roots in pre-Columbian civilization. Designed for students enrolled in the Summer-in-Mexico Program. (A, CSU)

## 11 COSTA RICA: A CULTURAL OVERVIEW

1 unit, 1 lecture hour
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Culture of modern Costa Rica and its roots in pre-Columbian civilization. Designed for students enrolled in the Summer in Costa Rica Program. (A, CSU)

## SWAHILI (SWAHLI)

## 1 BEGINNING SWAHILI

4 units, 3 lecture hours, 2 lab hours, (See also
African-American Studies 21), (Formerly Swahili 1A)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

First semester beginning Swahili: listening, speaking, grammar, writing, reading, and vocabulary. Designed for students with no knowledge of Swahili. (A, CSU-GE, UC)

## 2 HIGH-BEGINNING SWAHILI

4 units, 3 lecture hours, 2 lab hours, (See also
African-American Studies 22)
PREREQUISITE: Swahili 1/African/American Studies 21. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Second semester Swahili: listening, speaking, grammar, reading, writing, comprehension, and vocabulary. (A, CSU-GE, UC)

## FRENCH see foreign languages

## GEOGRAPHY (6EO6)

## 1 PHYSICAL GEOGRAPHY

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The Earth's dynamic physical systems and processes. Topics include weather, climate, geomorphology, soils, and the biosphere. Emphasis on interrelationships among systems and processes and their resulting patterns and distributions. Tools of geographic inquiry include maps, remote sensing, graphic data, and models. (CAN GEOG 2) (A, CSU-GE, UC, I)

## 2 CULTURAL GEOGRAPHY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The relationship between the cultural environment and the physical environment. Topics include language, religion, politics, economics, and urbanization. (CAN GEOG 4) (A, CSU-GE, UC, I)

## 4A WORLD GEOGRAPHY

3 units, 3 lecture hours, (Formerly Geography 4)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Europe, the post-Soviet region, Asia, and Africa. Physical settings, population patterns, natural resources, and economic and political status. (A, CSU-GE, UC, I)

## 4B WORLD GEOGRAPHY

3 units, 3 lecture hours, (Formerly Geography 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The Americas, Australia, New Zealand, and the Pacific Islands. Physical settings, population patterns, natural resources, and economic and political status. (A, CSU-GE, UC, I)

## 7 PHYSICAL GEOGRAPHY: EARTH'S SURFACE

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Processes of formation: application of principles of physical geography to maps and photographs. Landform features (soils, natural vegetation and water bodies). (A, CSU-GE, UC, I)

## 8 PHYSICAL GEOGRAPHY: WEATHER AND CLIMATE

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Map projections; location on the earth's surface, time, oceans, climatological methods; meteorological instruments; interpretation of weather maps. (A, CSU-GE, UC, I)

## 10 INTRODUCTION TO GIS

3 units, 2 lecture hours, 4 laboratory hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended. Basic computer literacy is desirable.

Introduction to the fundamental concepts of Geographic Information Systems (GIS) including familiarization with computers, data input, raster GIS, vector GIS, querying, methods of spatial analysis, and application of GIS. (A, CSU, UC)

## GEOLOGY (GEOL)

## 1 PHYSICAL GEOLOGY

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Plate tectonics, rocks and minerals, weathering, mass wasting, surface and ground water, wind, waves and currents, glaciation, mountain building, volcanoes and other igneous activity, deformation and resulting structures, earthquakes, Earth's interior, geologic time, and earth resources. Lab topics include rock and mineral identification and interpretation of topographic and geologic maps. Optional field trips. (CAN GEOL 2) (A, CSU-GE, UC, I)

## 2 HISTORICAL GEOLOGY

3 units, 3 lecture hours, (Spring)
ADVISORY: Geology 1 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The origin and evolution of Earth and its biosphere, incorporating plate tectonics, stratigraphy, paleontology, geologic dating, etc. Special emphasis on the evolution of North America. Optional field trip. (CAN GEOL 4) (A, CSU-GE, UC, I)

## GERMAN see foreign languages

## GRAPHIC COMMUNICATIONS (GRC)

(FORMERLY PRINTING TECHNOLOGY)

## 5 INTRODUCTION TO MACINTOSH COMPUTER USE

1 unit, 2 lecture hours, ( 9 weeks), (Repeats = 3),
(Formerly Printing Technology 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 recommended.

The filing structure and systematic operation of the window environment. Includes introductory word processing assignments. (A, CSU)

## 10 INTRODUCTION TO GRAPHIC COMMUNICATIONS

2 units, 2 lecture hours, (Repeats = 3), (Formerly Printing Technology 10)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Introduction to graphic communications via print and electronic media. History, limitations and requirements of production processes, responsibilities and career with demonstrations, discussion, and basic project. (A, CSU)

## 12 PAGEMAKER/INTRODUCTION TO GRAPHIC LAYOUT

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ),
(Formerly Printing Technology 12)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Introduction to Adobe Pagemaker for graphic layout work in desktop publishing. Copy preparation, page layout, basic design elements, typography, and principles of photo offset lithography using both traditional and computerized methods. (A, CSU)

## 13 IMAGE CAPTURE/SCANNING

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Printing Technology 13)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Image capture and scanning for print, multimedia, or web page production. Resolution, halftone specification, and tone manipulation. (A, CSU)

## 14 ADOBE ACROBAT

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Adobe Acrobat software and others used for the generation of por
table file format (PDF) documents for the world wide web, distribute and print workflows, or inclusion in multimedia productions. (A, CSU)

## 15 WEB PAGE CONSTRUCTION 1

4 units, 3 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Production methods of graphic communications systems with emphasis on page development for world wide web publication. Projects explore the limitations and considerations of sottware application programs. Students will generate a web page. (A, CSU)

## 16 PROJECTS/WEB PAGE CONSTRUCTION 2

4 units, 3 lecture hours, 3 lab hours, (Repeats = 3)
PREREQUSITE: GRC 15. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Advanced production methods of graphics communications systems with emphasis on page development for world wide web publication. Projects explore the limitations and considerations of software application programs. Inclusion of audio, animation, and 3-D images in student generated web page. (A, CSU)

## 17 ADOBE ILLUSTRATOR/ILLUSTRATION SOFTWARE

3 units, 2 lecture hours, 3 lab hours, (Repeats =3),
(Formerly Printing Technology 17)
ADVSORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Adobe Illustrator drawing program for desktop publishing. Showcase and comparison of other vector image programs and hands-on project work. Creating work for reproduction. (A, CSU)

## 18 GRAPHIC PRODUCTION METHODS 1

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended. GRC 10 (formerly PT 10) recommended.

Production methods of graphic communications systems with emphasis on printed material. Projects explore the limitations and considerations of software application programs for output of images and final reproduction with the printing process. Students will generate and execute printed materials. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3), (Formerly Printing
Technology 19)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to graphic communications. Learning objectives established specific to graphic communications. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 DESKTOP PUBLISHING

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Printing Technology 20)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Overview of the desktop publishing process as it relates to the printing industry. Terminology, input/output considerations, current trends and hands-on projects using each of the three major types of software; illustration, page layout, and image adjustment. (A, CSU)

## 21 PROJECTS/GRAPHIC PRODUCTION METHODS 2

4 units, 3 lecture hours, 3 lab hours, (Repeats $=3$ )
PREREQUSITE: GRC 18.
Advanced production methods of graphic communications systems with emphasis on printed material. Students will generate and execute printed materials for their portfolio. (A, CSU)

## 22 MULTIMEDIA 1

4 units, 3 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVSORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 and GRC 5 recommended.

An introduction to multimedia publication. Terminology, input/ output considerations and a lab project utilizing current software. (A, CSU)

## 23 PROJECTS/MULTIMEDIA 2

4 units, 3 lecture hours, 3 lab hours, $($ Repeats $=3)$
PREREQUSITE: GRC 22.
Continued studies in multimedia publication. Terminology, input/output considerations and individual student project work using current software. (A, CSU)

## 24 FLASH ANIMATION

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for ENGL 125 and 126 or ENGL 153 or ESL 67 and 68 and MATH 101 recommended.

Macromedia Flash animation program for Internet publishing and multimedia. Design and completion of interactive website. Components from image adjustment and draw programs. (A, CSU)

## 25 FIREWORKS/DREAMWEAVER

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3)
ADVISORY: Eligibility for ENGL 125 and 126 or ENGL 153 or ESL 67 and 68 and MATH 101 recommended.

Macromedia Fireworks image editing program for Internet and desktop publishing. Image capture, manipulation and export for web page integration. Macromedia Dreamweaver is used in conjunction with this program in order to generate html pages to be displayed in an Internet browser. Both Fireworks and Dreamweaver are used together in GRC 15 and GRC 16. (A, CSU)

## 26 MACROMEDIA FREEHAND

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3)
ADVISORY: Eligibility for ENGL 125 and 126 or ENGL 153 or ESL 67 and 68 and MATH 101 recommended.

Macromedia Freehand drawing program for Internet and desktop publishing. Showcase and comparison of other vector image programs and hands-on project work. Creating graphics for commercial publishing. (A, CSU)

## 30 QUARK XPRESS/PROFESSIONAL PUBLISHING

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Printing Technology 30)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Quark Xpress page layout software. Emphasis on working with a service bureau for remote output and dealing with printing requirements. Components from image adjustment and draw programs. (A, CSU)

## 39A GRAPHIC DESIGN I

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ), (Formerly Printing Technology 39 and Graphic Communications 39)
PREREQUSITE: GRC 20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Principles and methods of graphic communication. Projects incorporate symbols and typography into visual design, exploring interrelationships between the formal elements and symbolic content. (A, CSU)

## 40A GRAPHIC DESIGN II

1.5 units, 2 lecture hours, 3 lab hours, ( 9 weeks), (Repeats $=3$ ), (Formerly Printing Technology 40 and Graphic Communications 40)
PREREQUSITE: GRC 39A and Art 39B. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Advanced principles and methods of graphic communication. Projects incorporate symbols and typography into visual design, exploring interrelationships between the formal elements and symbolic content. (A, CSU)

## 41 VISUAL COMMUNICATIONS

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3),
(Formerly Printing Technology 41)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 recommended.

Communication theory, organization and delivery methods. Creating presentation materials with computer, video, and photographic techniques. (A, CSU)

## 54 MATH FOR GRAPHIC COMMUNICATIONS

3 units, 3 lecture hours, (Formerly Printing
Technology 54)
PREREQUISITE: Eligibility for Math 101. ADVSORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 recommended.

Essential math topics for the graphics person. Image resolution and compression, file size determination, compression routines, cropping to aspect ratio, proportional scaling of art work, measuring systems, paper planning and ordering, estimating, type specification, and other issues. (A, CSU)

## 59 TECHNICAL COMMERCIAL ART

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3),
(Formerly Printing Technology 59)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Designs, layouts and production planning, technical illustration, cartooning, hand separations and paste-up to produce camera-ready copy. (A, CSU)

## 62 PRINTING MANAGEMENT

3 units, 3 lecture hours, (Formerly Printing
Technology 62)
ADVISORY: Eligibility for English 125 and 126 or English 153 or English 67 and 68 and Math 101 recommended.

Production forecasting, functions, quality control, personnel management, purchasing and ordering of supplies and equipment. Administrative aspects of shop planning and operations. (Scheduled infrequently) (A, CSU)

## GUIDANCE STUDIES (GS)

## 11 STRATEGIES FOR ACADEMIC SUCCESS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Recommended for intercollegiate athletes. Designed to help entering students make a smooth transition into collegiate life, as well as increase knowledge of policies, procedures, resources, and academic requirements especially pertaining to student athletes. Introduces techniques to improve learning strategies along with academic and professional development. (A, CSU)

## 38 STUDENT SUCCESS SKILLS ENHANCEMENT

3 units, 3 lecture hours, (Repeats = 1)
PREREQUISITE: None.
Development of academic language skills for underprepared college students. (A, CSU)

## 40 CROSS-CULTURAL APPRECIATION

1 unit, 1 lecture hour, (See also Cultural Studies 40)
A cross-cultural appreciation of institutions and societies of the world, including the USA. (A, CSU)

## 41 TRANSITIONS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Recommended for students in transition from high school to college and reentry adults returning to school. Required for disqualified students and any progress probation students. Personal and academic values and priorities, college culture and diversity, procrastination, motivation, self-responsibility and awareness, behavior modification, problem-solving, goal setting and planning, critical analysis, creative thinking, time management, probation policies, strategies to get off and stay off probation, study and classroom skills, research and library skills, multi-learning styles, health and wellness with an emphasis in overall lifelong success. (A, CSU)

## 43 GROUP DYNAMICS AND SELF UNDERSTANDING

2 units, 2 lecture hours
An interactive group process with a focus on building self-confidence, self-esteem, assertiveness, communication, and interpersonal skills within a supportive environment. (A, CSU)

## 44 AMERICORPS COMMUNITY SERVICE

3 units, 2 lecture hours, 1 lab hour
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Training, theory and practice of AmeriCorps community service in elementary schools. Emphasis on AmeriCorps member training, leadership, citizenship and personal development through experience at local service sites. (A, CSU)

## 45 RE-ENTRY CAREER PLANNING

1 unit, 2 lecture hours, ( 9 weeks), (See also Women's Studies 45)
Career and educational development for the college student: Assessment (testing), occupational information, and decision-making strategies. Emphasis: Women over age 24 who are returning after a significant break in their education. (A, CSU)

## 46 RE-ENTRY JOB PREPARATION

1 unit, 2 lecture hours, ( 9 weeks), (See also Women's Studies 46)
How to locate job openings, prepare a personal resume and application letter. Practice in filling out applications, and techniques for job interviews. Exploration of related job topics such as job market and career implications. Emphasis: Women over age 24 who are returning to school after a significant break in their education. (A, CSU)

47A COLLEGE STUDY SKILLS, GENERAL HABITS
1 unit, 2 lecture hours, ( 9 weeks), (Formerly
Guidance Studies 52)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Establishing good study habits, developing confidence in learning, goalsetting, time management, improving concentration, active listening techniques and effective classroom behavior. (A, CSU)

## 47B COLLEGE STUDY SKILLS, ACADEMIC SKILLS

1 unit, 2 lecture hours, ( 9 weeks), (Formerly
Guidance Studies 52)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Lecture note taking, textbook study, memorization techniques, test taking, vocabulary building, and other study methods. (A, CSU)

## 48 CAREER PLANNING

1 unit, 2 lecture hours, (6 additional hours
arranged), (6 weeks)
Career and educational planning for the college student. Assessment (testing), occupational information, and decision making. (A, CSU)

## 49 JOB PREPARATION

1 unit, 2 lecture hours, ( 6 additional hours
arranged), (6 weeks)
How to locate job openings and prepare a personal resume. Practice in filling out applications for employment, application letters, and developing techniques for job interviews. Exploring other related topics, such as career implications and the job market. (A, CSU)

## 150 COLLEGE INTRODUCTION

1 unit, 2 lecture hours, ( 9 weeks), (Formerly
Guidance Studies 50)
Self-assessment, success planning, time management, campus resources, catalog/educational planning, and career awareness. (A)

## 260 PERSONAL MANAGEMENT STRATEGIES

4 units, 5 lecture hours, (Credit/No Credit), (Repeats
$=1$ ), (Formerly Guidance Studies 60)
PREREQUISITE: None.
Topics related to personal adjustment, study skills, career exploration, and barriers to employment. An intensified approach for students enrolled in short-term Business Education programs.

## 270 ORIENTATION FOR ACADEMIC SUCCESS

1 unit, 2 lecture hours, ( 9 weeks), (Credit/No Credit), (Repeats $=3$ ), (Formerly Guidance Studies 70)
Emphasis on self-responsibility, assertiveness, self-confidence, learning style(s), stress reduction and the importance they play in academic success.

## 275 PLANNING YOUR EDUCATION

1/2 unit, 2 lecture hours, (4 weeks), (Credit/No
Credit), (Formerly Guidance Studies 75)
Orientation to college programs, requirements, services, responsibilities, registration, policies and resources. Specific populations: CSU transfer, undecided, and EOP\&S.

## HAZARDOUS MATERIALS

SEE ENVIRONMENTAL TECHNOLOGY

## HEALTH INFORMATION TECHNOLOGY (Hit) formerly medical record technology

[^1]Introduction to health care delivery systems, hospital organization, the medical record and the health information department including access, retention, data collection, quantitative analysis, and computerized health information systems; accreditation, licensure and regulatory requirements; the role of the health information professional. (A, CSU)

## 2 LEGAL ASPECTS OF HEALTH INFORMATION

2 units, 2 lecture hours, (Formerly Medical Record Technology 2)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Legal basis for the control, use, and release of health information. Concept of consent for treatment and other procedures. Federal and state laws and regulations governing the handling of special heal th information. Emphasis on procedures used in responding to requests for health information. Not offered every semester. (A, CSU)

## 3 QUALITY IMPROVEMENT

2 units, 2 lecture hours, (Formerly Medical Record Technology 3)
PREREQUSITE: Information Systems 15. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History and development of quality improvement efforts in health care. Quality assessment techniques, medical staff organization and peer review, utilization review, and risk management. Roles and responsibilities of individuals involved in quality improvement. Software tools for quality improvement, databases and spreadsheets. (A, CSU)

## 4 DISEASE PROCESS

3 units, 3 lecture hours
PREREQUSITE: Biology 51.
An introduction to clinical medicine via the study of pathology. An exploration into the general principles of disease and the disorders that affect the body as a whole and on the diseases of individual organs or systems. The objective is to describe important pathologic mechanisms in considerable detail. (A, CSU)

5 INTRODUCTION TO CODING
3 units, 3 lecture hours
PREREQUISITE: Health Information Technology 10.
COREQUISITE: Health Information Technology 4 and Medical Assisting 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review of coding systems used in health care, e.g., ICD-9-CM, DSM, SNOMED, RBRVS, and ICD-O. Abstracting and collection of data for registries and reimbursement. Introductory level assignment of ICD-9CM codes using manual and computer methods. (A, CSU)

## 6 CODING AND REIMBURSEMENT

3 units, 3 lecture hours
PREREQUSITE: Health Information Technology 5. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Intermediate level ICD-9-CM and CPT level coding for inpatient records using encoder and code books. Reimbursement issues for DRG optimization, case mix analysis, APG's, severity of illness systems and charge masters. Not offered every semester. (A, CSU)

## 7 DIRECTED PRACTICE

5 units, 1 lecture hour, 12 lab hours, (Credit/No
Credit), $($ Repeats $=3)$
PREREQUSITE: Health Information Technology 3 and 5. ADVI-
SORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Clinical application of advanced principles and practices of Health Information Technology in a clinical facility. (A, CSU)

## 8 HEALTH INFORMATION MANAGEMENT AND SUPERVISION

3 units, 3 lecture hours
PREREQUSITE: Health Information Technology 1. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Effective management of technical and human factors in health information services. Planning, organizing, budgeting, strategic planning, work space design, recruitment, selection, training and development, evaluation, compensation, and labor relations. Not offered every semester. (A, CSU)

## 9 HOSPITAL AND HEALTH STATISTICS

2 units, 2 lecture hours
ADVISORY: Eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

Basic hospital and health statistics including the sources, definitions, and calculation of common rates and percentages. Computerized and manual methods for collection, computation and presentation. Review of regulatory, accreditation, and vital statistics reporting. (A, CSU)

## 10 MEDICAL TERMINOLOGY

3 units, 3 lecture hours, (Formerly Medical Record
Technology 10)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Medical vocabulary with concentration on prefixes, suffixes, and root words. Emphasis on word dissection and definitions as applied to
the body systems including the terminology used in examinations, diagnoses, procedures, laboratory investigations, and medical reports. (A, CSU)

## 11 CPT CODING

2 units, 2 lecture hours
PREREQUISITE: Health Information Technology 10. Corequisite: Health Information Technology 4. Advisory: Eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

Introduction to CPT coding, HCPCS levels and ambulatory payment classifications. Emphasis on the principles and methods for correct coding and the related reimbursement issues. Manual and computerized encoder systems are utilized. (A, CSU)

## 12 HEALTH INFORMATION IN ALTERNATIVE SETTINGS

2 units, 2 lecture hours
PREREQUISITE: Health Information Technology 1. Advisory: Eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

Introduction to non-traditional health information systems and settings including organizational structure, accreditation and licensing requirements, documentation requirements, and the role of the health information practitioner. Emphasis on long-term care, mental health, and ambulatory care settings. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to health information technology. Learning objectives established specific to health information technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## HEALTH SCIENCE (HLTH)

## 1 CONTEMPORARY HEALTH ISSUES

3 units, 3 lecture hours, (Formerly Health Education 1)

ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Contemporary scientific concepts and medical information designed to promote health, prevent disease, increase life span and improve the quality of life involving the cardiovascular system, physical
fitness, nutrition, emotional health, human sexuality, sexually transmitted diseases, reproduction and birth control, heredity, substance abuse, cancer, consumer and environmental health and health care systems. (A, CSU-GE, UC)

## 2 FIRST AID AND SAFETY

2 units, 2 lecture hours, (Formerly Health Education 2)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic concepts and skills necessary to give first aid (including cardiopulmonary resuscitation). Satisfies the requirements of the American National Red Cross for certification in Adult Cardiopulmonary Resuscitation and Standard First Aid. (CAN KINE/PE 8) (A, CSU, UC)

## 211 MULTI-SKILLED HEALTH TECHNICIAN TRAINING

10 units, 13.2 lecture hours, 14 lab hours, (12
weeks), (Credit/No Credit), (Repeats = 2), (Formerly
Health Science 11)
PREREQUISITE: None.
Combination of the Certified Nursing Assistant and Home Health Aide Training with introduction and exposure to phlebotomy, physical and respiratory therapy assisting, and electrocardiography set-up procedure.

## 212 RCFE ADMINISTRATOR CERTIFICATION COURSE

2 units, 14 lecture hours, ( 3 weeks), (Credit/No Credit)
PREREQUISITE: None.
Training required by the California Department of Social Services (Community Care Licensing) for those persons seeking to become administrators or licensees of Residential Care Facilities for the Elderly (RCFE) small six-bed facilities or large assisted living and retirement communities.

## HISTORY (HIST)

## 1 WESTERN CIVILIZATION TO 1648

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Asurvey of the political, social, economic, cultural, and intellectual developments of European civilization from its pre-historic antecedents in the Middle East to the rise of modern European nations in the seventeenth century. (CAN HST 2) (A, CSU-GE, UC, I)

## 1H HONORS WESTERN CIVILIZATION TO 1648

3 units, 3 lecture hours, (Formerly Honors 1H)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing, page 272.

Asurvey of the political, social, economic, cultural, and intellectual developments of European civilization from its prehistoric antecedents in the Middle East to the rise of modern European nations in the seventeenth century. In addition, Honors sections take a greater cross-disciplinary perspective, critically evaluate issues and controversies in historiography of the ancient-through-early-modern periods, and place greater emphasis on the use of history in understanding the modern world. (CAN HIST 2) (A, CSU-GE, UC, I)

## 2 WESTERN CIVILIZATION SINCE 1648

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The philosophical, political, and economic development of the European civilizations and their "offspring" in the New World and elsewhere from the 17th century to the present era. (CANHIST 4) (A, CSUGE, UC, I)

## 2H HONORS WESTERN CIVILIZATION SINCE 1648

3 units, 3 lecture hours, (Formerly Honors 2H)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

The philosophical, political, and economic development of European civilizations and their "offspring" in the New World and elsewhere from the 17th century to the present era. In addition, Honors sections take a greater cross-disciplinary perspective, critically evaluate issues and controversies in historiography of the early-modern-to-present periods, and place greater emphasis on the use of history in understanding the modern world. (CAN HIST 4) (A, CSU-GE, UC, I)

## 3 ANCIENT ROME

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The history, politics, social life, literature, art, architecture, religion, and archaeology of Rome from earliest times to the fall of the Roman Empire. Extensive use of slides. One field trip. (A, CSU, UC)

## 11 HISTORY OF THE UNITED STATES TO 1865

3 units, 3 lecture hours
ADVISORY: Eligibility for English 1A recommended.
Political, social and economic development from the colonial period through the Civil War. Satisfies United States history requirement for BA degree. (CAN HST 8) (A, CSU, UC)

## 12 HISTORY OF THE UNITED STATES SINCE 1865

3 units, 3 lecture hours
ADVISORY: Eligibility for English 1A recommended.
Political, social and economic development since Reconstruction; the US as a world power. Satisfies the US history requirement for BA degree. (CAN HST 10) (A, CSU, UC)

## 15 HISTORY OF THE BRITISH ISLES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The British Isles from pre history to the present. (A, CSU-GE, UC, I)

## 17 HISTORY OF ISLAM

3 units, 3 lecture hours
ADVISORY: History 1 and eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

An analytical survey of Islamic history from the life of Muhammad to the Ottoman Empire. Discussion of the political and military aspects of Islam, Islamic science and medicine, and mystical movements within Islam. (A, CSU, UC)

## 18 HISTORY OF ANCIENT GREECE

3 units, 3 lecture hours
ADVISORY: History 1 and eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

An intensive survey of Greek history from the Bronze Age to the Hellenistic period. Discussion of the Homeric poems, the development of the polis system in Athens and Sparta, the Persian and Peloponnesian Wars, and Hellenistic science and technology. (A, CSU, UC)

## 21 UNITED STATES CIVIL WAR

3 units, 3 lecture hours
ADVISORY: Satisfactory completion of History 11 recommended.
Causes, events, and consequences of the American Civil War. Emphasis on military history using simulations. Course meets graduation requirement for computer literacy for students majoring in history. (A, CSU, UC)

29 HISTORY OF MEXICO, COLONIAL TO CONTEMPORARY PERIOD
3 units, 3 lecture hours, (See also Chicano-Latino Studies 29)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A social, economic, and political survey of Mexican history from the colonial period (1521) to contemporary times. (A, CSU, UC)

## 30 CALIFORNIA HISTORY

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Growth and development of California politically, economically, and culturally from 1523 to the present, emphasizing 20th century issues. (A, CSU, UC)

## 34 HISTORY OF AMERICAN CIVIL RIGHTS MOVEMENT 1954-1969

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Based on the civil rights struggle in contemporary America. Legal, moral, ethical, religious and humanistic foundations of the Movement. Nature and forms of discrimination, segregation and oppression. Enforcement and protection of human and civil rights in the United States. (A, CSU, UC)

## HMONG SEE FOREIGN LANGUAGES

## HOME ECONOMICS (нес)

## 1 PROFESSIONAL DEVELOPMENT AND CAREERS IN HOME ECONOMICS

3 units, 3 lecture hours, (Formerly Home Economics 3)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Educational and occupational opportunities available in home economics. Emphasis on the personal and academic competencies needed for success in interior design, fashion merchandising, family studies and child development, food and nutrition, clothing and textiles, and consumer economics. History and future of home economics, career options, academic preparation, self-assessment and evaluation, and job search skills. (A, CSU)

## 7 INTERIOR DESIGN

3 units, 3 lecture hours, 1 lab hour, (Formerly Home Economics 20)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

A comprehensive introduction to the economic, social, psychological, and aesthetic aspects of housing and interior design. Integration of design principles, space planning, furniture selection and creative expression with consumer information pertaining to living space.

Laboratory experiences include space analysis, color and materials coordination, and furniture arrangement. Field trips required. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to home economics. Learning objectives established specific to home economics. Sev-enty-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 TEXTILES

3 units, 3 lecture hours, 1 lab hour, (See also Fashion Merchandising 20), (Formerly Home Economics 11)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introductory analysis of textile fibers, yarns, fabrications, dyestuffs, and finishes. Emphasis on selection, use, performance, suitability, and care of textiles for appareal and home furnishings. Legislation, labeling, and simple testing and evaluation of performance. Hands on experience testing fiber characteristics. This course is appropriate for students in fashion merchandising, apparel construction, and interior design, as well as for any consumers who do laundry. (A, CSU, UC)

## 24 BEGINNING SEWING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Basic techniques for developing skills in the construction of apparel or home furnishings including artistic and economic factors in the selection of fabric, patterns, notions, tools and equipment. Sizing, selection, simple adjustments, layout and cutting of patterns. Construction techniques including seams, seam finishing, darts, facings, hems, and standards of qualify and fit in two completed projects. Accommodates students who have no prior sewing experience as well as the sewer who desires to improve basic skills. (A, CSU)

## 26 INTERMEDIATE SEWING

3 units, 6 lab hours, (Repeats = 3)
PREREQUISITE: Home Economics 24 ( or equivalent). ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of advanced skills in apparel construction including pattern alteration, basic tailoring techniques, and custom couture
techniques; the use of special fabrics such as plaids, laces, sheers, and pile; methods of individualizing clothing with structural and applied designs such as piping, quilting, or applique. (A, CSU)

## 163 EFFECTIVE PARENTING (EMPHASIS: CALWORKS

 STUDENTS)1 unit, 1 lecture hour, (See also Child Development 63)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Selected parenting topics for CalWORKs students: feelings, cooperation, alternatives to punishment, encouraging autonomy, using praise, sibling rivalry, and behavior management. Support and discussion. (A)

## HONORS (HONORS)

## ANTHROPOLOGY 2H, HONORS CULTURAL ANTHROPOLOGY

3 units, 3 lecture hours, (Formerly Honors 2A)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Principles, methods, and concepts of cultural anthropology. The relationship between culture, society, and the individual. A cross-cultural, integrated analysis of human marriage and family, child rearing, personality development, kinship, social institutions, ideology, politics and social control, economics and ecological adaption, language, artistic expression, and cultural change. In addition, the Honors course takes a greater cross-disciplinary perspective, places greater emphasis on the use of anthropology on the understanding of the modern world, and more critically evaluates the methods and theory of anthropology. (A, CSU-GE-UC, I)

## ART 5H, HONORS ART HISTORY 1

3 units, 3 lecture hours, (Formerly Honors 5A)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

A survey of the history of the visual arts of Western Civilization from prehistory through the Gothic style. Honors sections will include special introduction for non-art majors into the characteristics and components of art and a brief introduction into art criticism. (A, CSUGE, UC, I)

## ART 6H, HONORS ART HISTORY 2

3 units, 3 lecture hours, (Formerly Honors 6A)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

A survey of the history of the visual arts of Western Civilization from the beginning of the Renaissance to the present. Honors sections will include a special introduction for non-art majors into the characteristics and components of art and a brief introduction into art criticism. (A, CSU-GE-UC, I)

## BIOLOGY 1H, HONORS PRINCIPLES OF BIOLOGY

4 units, 3 lecture hours, 2 lab hours, (Formerly Honors 1B)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Recommended for preprofessional and life science majors. Fulfills prerequisite for Biology $4,6,7,20,22,24,31$. The cellular and chemical bases of life; living systems; genetics; evolution and the origin of life; ecology and environmental concerns. Honors sections cover additional subjects such as public health issues and the use of multimedia equipment for a science presentation which requires research. Honors sections may also include field trips and guest speakers. (A, CSU-GE, UC, I)

## BUSINESS ADMINISTRATION 10H, HONORS INTRODUCTION <br> TO BUSINESS

3 units, 3 lecture hours, (See also Management 10H)
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

Description: A survey of the basic business areas: economic systems, management, marketing, finance, operations, human resources, law, entrepreneurship, and international business, with enrichment and service learning activities and linkages to a Business Economics Honors colloquium. (A, CSU)

## CULTURAL STUDIES 7H, HONORS INTRODUCTION TO BRITISH CULTURE

3 units, 3 lecture hours, (See also Humanities 7H)
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors program listing in the college catalog.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics includel language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity,
education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

## ECONOMICS 1AH, HONORS INTRODUCTION TO MACROECONOMICS

3 units, 3 lecture hours
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

Principles of macroeconomics: consumers, business, and government in the United States economy. Alternative approaches and solutions to inflation and unemployment, fiscal and monetary policy in economic planning and management. In addition, Honors sections will discuss and analyze the works of historical economic figures. (A, CSU)

ENGLISH 1AH, HONORS READING AND COMPOSITION
4 units, 4 lecture hours, (Formerly Honors 1E)
ADVSORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Reading, analyzing, and writing college-level prose, with emphasis on the expository: studying writing as a process; exploring different writing strategies; summarizing, editing, and critiquing; conducting research (gathering, organizing, evaluating, integrating and documenting information). Honors sections may cover additional subject matter such as creative writing, peer response, the study of oral narrative and its relationship to writing and composing on the computer. (CANENGL 2) (A, CSU-GE, UC, I)

## ENGLISH 1BH, HONORS INTRODUCTION TO THE STUDY OF LITERATURE

3 units, 3 lecture hours, (Formerly Honors 1F)
PREREQUISITE: Satisfactory completion of English 1A or the equivalent. ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Reading and critical analysis of short stories, novels, poems, and plays. Honors sections may cover additional subject matter such as introduction to formal literary criticism in addition to more extensive reading of literature and additional writing. (A, CSU-GE, UC, I)

## ENGLISH 3H, HONORS CRITICAL READING \& WRITING

3 units, 3 lecture hours
PREREQUISITE: English 1A.
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Developing critical thinking skills in reading and writing beyond English 1A. Reasoning for analysis and argument writing based mainly on non-fiction readings. Honors sections may cover additional subject matter, such as more in-depth analytical research, extensive analysis of rhetorical discourse, and the study of how critical reasoning and argument is utilized in content area research and practice. (A, CSU)

HISTORY 1H, HONORS WESTERN CIVILIZATION TO 1648
3 units, 3 lecture hours, (Formerly Honors 1H)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Asurvey of the political, social, economic, cultural, and intellectual developments of European civilization from its prehistoric antecedents in the Middle East to the rise of modern European Nations in the seventeenth century. In addition, Honors sections take a greater cross-disciplinary perspective, critically evaluate issues and controversies in historiography of the ancient-through-early-modern periods, and place greater emphasis on the use of history in understanding the modern world. (A, CSU-GE-UC, I)

HISTORY 2H, HONORS WESTERN CIVILIZATION SINCE 1648
3 units, 3 lecture hours, (Formerly Honors 2H)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

The philosophical, political, and economic development of European civilizations and their "offspring" in the New World and el sewhere from the 17th century to the present era. In addition, Honors sections take a greater cross-disciplinary perspective, critically evaluate issues and controversies in historiography of the early-modern-to-present periods, and place greater emphasis on the use of history in understanding the modern world. (A, CSU-GE, UC, I)

## HONORS 1, HONORS COLLOQUIUM

1 unit, 1 lecture hour, (Repeats = 3)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Aseminar led by two or more instructors from different disciplines in which the topics stress interdisciplinary connections and the study impels depth and breadth of thought in discussions, readings, writings or projects about the topics. May include field trips and guest speakers. (A, CSU, UC)

## HUMANITIES 7H, HONORS INTRODUCTION TO BRITISH CULTURE

3 units, 3 lecture hours, (See also Cultural Studies 7H)
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors program listing in the college catalog.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics include language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity, education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

## MANAGEMENT 10H, HONORS INTRODUCTION TO BUSINESS

3 units, 3 lecture hours, (See also Business
Administration 10 H )
Advisory: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in college catalog.

A survey of the basic business areas: economic systems, management, marketing, finance, operations, human resources, law, entrepreneurship, and international business, with enrichment and service learning activities and linkages to a Business Economics Honors colloquium. (A, CSU)

## PHILOSOPHY 1AH, HONORS THEORIES OF KNOWLEDGE, EXISTENCE, AND BEAUTY

3 units, 3 lecture hours, (Formerly Honors 1P)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

An introduction to traditional and contemporary views on the nature of knowledge, truth, and thought; alternative views of God, nature, and man; judging the beautiful. Develops skills in philosophical analysis and logical thinking. Honors sections may also focus on an historical overview. (A, CSU-GE, UC, I)

## PSYCHOLOGY 2H, HONORS GENERAL PSYCHOLOGY

3 units, 3 lecture hours, (Formerly Honors 7P and Psychology 7H)
ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Scientific study of behavior and mental processes. Topics include history, methodology, biopsychology, lifespan development, sensation and perception, consciousness and altered states, learning and memory,
thought and language, intelligence, motivation and emotion, personality, psychopathology and therapy, stress and health, and social and cultural influences. The Honors section of this course places a greater emphasis on understanding the human being as an integrated physiological, social, and psychological organism and further enriches that perspective with data and theories from related disciplines. (A, CSUGE, UC, I)

## HUMAN SERVICES (HS)

## 2 AMERICAN MINORITY GROUPS

3 units, 3 lecture hours, (See also Sociology 2)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The institutional, ecological, demographic, sociological, and so-cial-psychological aspects of ethnicity and race, and the examination of other non-dominant groups in the United States. (A, CSU, UC)

## 5 SOCIOLOGY OF RAPE

3 units, 3 lecture hours, (See also Sociology 5 and Women's Studies 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A micro and macro overview of rape including the history of rape, a study of what creates a rape culture, social and psychological characteristics and pathology of rapists, sociological impact upon the psychology of the survivor. Includes the various forms of sexual assault, such as acquaintance rape, marital rape, male rape, gang rape and child sexual assault. The sociological foundation and history of current laws and their execution. (A, CSU)

## 7 DOMESTIC VIOLENCE: ABUSE WITHIN THE FAMILY

3 units, 3 lecture hours, (See also Sociology 7 and Women's Studies 7)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Amicro and macro study of the historical and contemporary problem of domestic violence. Overview of the battered spouse syndrome, characteristics of the survivor and the batterer, therapeutic approaches and development of legislation. Various forms of domestic violence such as child abuse, elder abuse, and violence in same gender relationships. (A, CSU)

## 10 INTRODUCTION TO AGING STUDIES

3 units, 3 lecture hours, (See also Sociology 10)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to gerontology: theories, concepts, perspectives, and research in the study of aging: psychological and sociological changes; cultural, multicultural, substance abuse and political issues. Intergenerational and multicultural activities. (A, CSU, UC)

## 18 ALCOHOL AND DRUG ABUSE COUNSELING:

 PROFESSIONAL AND PERSONAL GROWTH2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Techniques to establish optimal performance and the well-being of the helping professional. (A, CSU)

## 19A OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
PREREQUISITE: Human Services 20.
COREQUSITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on thejob, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to human services. Learning objectives established specific to human services. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 19B OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
PREREQUISITE: Human Services 42 and 43.
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to alcoholism counseling. Learning objectives established specific to alcoholism counseling. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 INTRODUCTION TO SOCIAL WELFARE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Social, economic, political, philosophical and historical factors in the development of social welfare and social work in western society. (A, CSU)

## 24 FUNDAMENTALS OF INTERVIEWING AND COUNSELING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Principles of interviewing and counseling, both theory and practice. Focus on specific skills within a human service setting. Analysis of the dynamics between counselor and client. (A, CSU)

## 25 ASSERTIVENESS TRAINING

2 units, 2 lecture hours, (See also Women's Studies
25)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

How to become more effective and creative in expressing oneself in a courteous and dignified manner. Discovering the communication options available in various life situations. (A, CSU)

## 30 GROUP AND COMMUNITY SOCIAL SERVICES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Methods in social work intervention with individual, group, and community; problem analysis and available services. (A, CSU)

## 35 INTRODUCTION TO EATING DISORDERS

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Compulsive overeating, bulimia, and anorexia nervosa. Selected research findings related to weight regulation, psychological variables, dieting, obesity, cultural factors, family dynamics, and medical complications. (A, CSU)

## 38 COMmUNITY MENTAL HEALTH: POLICY AND SERVICES

3 units, 3 lecture hours
COREQUSITE: Human Services 20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Community service prevention and treatment programs for mental health and illness. (Scheduled infrequently) (A, CSU)

40 ALCOHOL AND DRUG ABUSE COUNSELING: LAW AND ethics, PREVENTION, EDUCATION, OUTREACH AND REFERRAL
3 units, 3 lecture hours, (See also Sociology 40)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Classification of drugs, legal solutions, restrictions, community prevention, outreach, screening techniques, intervention and referral, and crisis counseling. Not open to students with credit in Human Services/Sociology 41. (A, CSU)

## 42 INTRODUCTION TO ALCOHOL AND DRUG COUNSELING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The history of alcohol and other mood changing drugs in the U.S.; myths and stereotypes of alcohol use; socio-cultural factors that contribute to the use of drugs; patterns and progression of alcoholism; and the dynamics of treatment. (A, CSU)

## 43 ALCOHOL AND DRUG ABUSE COUNSELING: CASE

 MANAGEMENT3 units 3 lecture hours
PREREQUISITE: Human Services 42. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Elementary techniques in the treatment of alcohol dependency for the individual and the family; student participation in counseling techniques in a group study experience. Bookkeeping, referral, consultation, and follow-up skills. (A, CSU)

## 44 PHYSICAL AND PSYCHOLOGICAL EFFECTS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The physical and psychological aspects of drug use, including abuse and addiction, physical and psychological dependencies, physiological effects of commonly used drugs, and treatment and prevention. Not open to students with credit in Human Services 45. (A, CSU)

## 160 BASIC SOCIAL WELFARE

2 units, 2 lecture hours, (Formerly Human Services
60)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Social, economic, political, philosophical, and historical factors in the development of social welfare and social work in western society. (Not open to students with credit in Human Services 20.) (A)

163 EFFECTIVE PARENTING (EMPHASIS: CALWORKS STUDENTS)
1 unit, 1 lecture hour, (See also Child Development 163), (Formerly Human Services 63)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Selected parenting topics for CalWORKs students: feelings, cooperation, alternatives to punishment, encouraging autonomy, using praise, sibling conflict, and behavior management. Support and discussion. (A)

164 BASIC COUNSELING AND INTERVIEWING TECHNIQUES 3 units, 3 lecture hours, (Formerly Human Services 64)

ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Principles of interviewing and counseling, both theory and practice. Focus on specific skills within a human service setting. Analysis of the dynamics between counselor and client. (Not open to students with credit in Human Services 24.) (A)

## 168 BASIC MINORITY GROUPS

3 units, 3 lecture hours, (Formerly Human Services 68)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The institutional, ecological, demographic, sociological, and so-cial-psychological aspects of ethnicity and race, and the examination of other non-dominant groups in the United States. (Not open to students with credit in Human Services/ Sociology 2.) (A)

## 170 BASIC SOCIAL WORK INTERVENTIONS

3 units, 3 lecture hours, (Formerly Human Services 70)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Methods in social work intervention with individuals, group, and community; problem analysis and available services. (Not open to students with credit in Human Services 30) (A)

## 171 DOMESTIC VIOLENCE

1 unit, 1 lecture hour, (Formerly Human Services 71)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Amicro and macro study of the historical and contemporary problem of domestic violence. (Not open to students with credit in Human Services 7 taken after Spring 1999.) (A)

## 261 INTRODUCTION TO FOSTER PARENTING

1 unit, 1 lecture hour, (Repeats = 3), (See also Child
Development 261), (Formerly Human Services 61)
PREREQUISITE: None.
The process of foster home licensing. Parenting skills specific to the needs of foster children. Agency resources and rights of foster parent, biological parent and foster child. (Not applicable to the AS degree.)

## 262 INDEPENDENT LIVING SKILLS

1 unit, 1 lecture hour, (See also Child Development 262), (Formerly Human Services 62)

PREREQUISITE: None.
Child development, parent-child communication, choices and consequences and skill acquisition necessary for successful independent living by teens preparing to leave foster care and the foster parents who care for adolescents. Designed primarily for the person interested in becoming a foster parent.

## HUMANITIES (human)

## 7 INTRODUCTION TO BRITISH CULTURE

3 units, 3 lecture hours, (See also Cultural Studies 7)
ADVISORY: Eligibility for ENGL 125 and 126 or ENGL 153 or ESL 67 and 68 recommended.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics include language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity, education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

7H HONORS INTRODUCTION TO BRITISH CULTURE
3 units, 3 lecture hours, (See also Cultural Studies 7H)
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors program listing in the college catalog.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics include language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity, education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

10 CLASSICAL HUMANITIES
3 units, 3 lecture hours
PREREQUISITE: English 1A
An integrated study of the art, music, literature, philosophy, and drama of Western civilization from the Greeks through the Renaissance. (A, CSU-GE, UC, I)

## 11 MODERN HUMANITIES

3 units, 3 lecture hours
PREREQUISITE: English 1A. Humanities 10 is not a prerequisite for this course.

An integrated study of the art, music, literature, philosophy, and drama of the Western civilization from the seventeenth century to the present. (A, CSU-GE, UC, I)

## INDIVIDUAL STUDY (INDST)

49 (COURSE TITLE TO BE SELECTED)
1-3 units, minimum of 54 hours required per unit, (Repeats $=3$ )
PREREQUISITE: To be determined by the staff making application for Individual Study 49.

Creative or research project leading to a paper, report, construction, composition or other product. An exploration of a subject not normally covered in a regular course. The course name, title and content are to be identified by the instructor after consultation with the student. A course application form must be completed by the student and approved by the instructor and the associate dean. (A, CSU, UC)

## INDUSTRIAL EDUCATION

SEE APPLIED TECHNOLOGY (AT)

## INFORMATION SYSTEMS (IS)

## FORMERLY COMPUTER INFORMATION SYSTEMS

## 12 COMPUTER LITERACY

3 units, 3 lecture hours, 1 lab hour, (Formerly Computer Information Systems 56)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic introduction to computers and their usage. Basic principles of hardware and software; shopping for a personal computer; social issues associated with the role of computers in the world today; and as introduction to word processing, spreadsheets, Internet principles and usage. (A, CSU, UC)

14 WINDOWS
1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (See also Business Information Processing 14), (Formerly CIS 14)
ADVISORY: Knowledge of keyboard by touch. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Hands-on operation of Microsoft Windows. (A, CSU)

## 15 COMPUTER CONCEPTS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Computer Information Systems 15)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Introduction to computers and their use. Basic principles of hardware and software, applications programs, system software, telecommunications, networks, program design, the Internet and the World Wide Web. Windows, the Internet, word processing, spreadsheet and database programs, and Visual Basic. (CANBUS 6) (A, CSU, UC)

## 17 DATA COMMUNICATIONS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Computer Information Systems 17)
PREREQUISITE: IS 15.
Essential elements that make up data communications including transmission media, local area networks, wide area networks, network interconnections, network management, security, network applications, and related technologies. (A, CSU)

## 18 SPREADSHEET FUNDAMENTALS

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(See also BT 18), (Formerly Information Systems 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Creating and formatting a worksheet, using formulas and functions, and creating graphs; integrating spreadsheets with other programs and the World Wide Web; and creating graphs. Additional lab hours in IS 60 or BT 50 available for students to complete homework assignments. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, 1 lecture hour, (Repeats = 3)
COREQUSITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to Information Systems. Learning objectives established specific to Information Sys-
tems. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 ADVANCED SPREADSHEETS

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks)

PREREQUISITE: IS/BT 18. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Creating and formatting a worksheet, using formulas and functions, and creating graphs; integrating spreadsheets with other programs and the World Wide Web; and creating macros. Additional lab hours in IS 60 or BT 50 available for students to complete homework assignments. (A, CSU)

## 22 COMPUTER OPERATING SYSTEMS

3 units, 3 lecture hours, 2 lab hours
PREREQUISITE: IS 12 or IS 15.
Principles of computer operating systems. A survey and comparison of various operating systems such as Linux, Windows NT, Windows 98, MS-DOS, etc. (A, CSU)

## 23 WEB PAGE DEVELOPMENT I

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks)

PREREQUSITE: IS 12 or IS 15 and IS 40.
Designing web pages for the Internet using a web page design language. (A, CSU)

## 24 WEB PAGE DEVELOPMENT II

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks) PREREQUISITE: IS 23.
Designing web pages for the Internet using Microsoft FrontPage. (A, CSU)

## 25 MICROSOFT OFFICE

3 units, 3 lecture hours, 1 lab hour, (See also
Business \& Technology 25)
PREREQUISITE: IS 12 or IS 15 or equivalent.
The major software components of the Microsoft Office suite: Word, Excel, Access, and PowerPoint. Working within the Windows graphical user interface, creating applications and sharing data files to develop solutions that use more than one component of the suite. (A, CSU)

## 26 DATABASE FUNDAMENTALS

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks), (See also Business \& Technology 26), (Formerly
Information Systems 6)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating database files; entering data; modifying database file structure; designing queries, reports and forms. Integrating a database
with other programs and creating hyperlinks to the World Wide Web. Additional lab hours in IS 60 and BT 50 available for students to complete homework assignments. (A, CSU)

## 27 ADVANCED DATABASE

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks), (Formerly Computer Information Systems 40)
PREREQUSSITE: IS/BT 26 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Using a database program to perform advanced queries, automate tasks using macros, customize toolbars and menus, using Visual Basic for applications to customize Access. (A, CSU)

30A FUNDAMENTALS OF NETWORKING
3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 28 and 30)
PREREQUISITE: IS 15 and IS 17.
Fundamentals of computer network design, installation, software and communication links. (A, CSU)

## 30B MCSE-2153 NETWORK INFRASTRUCTURE

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: IS 15, IS 17, and IS 30C
COREQUSITE: IS 30A
Installing, configuring, managing, and supporting a network infrastructure that uses Microsoft Windows 2000 Server products. For product support professionals who will be responsible for installing, configuring and supporting a Microsoft Windows 2000 network infrastructure. Prepares students for the MCSE exam 70-216. (A, CSU)

## 30C MCSE-2154 DIRECTORY SERVICES

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: IS 15, IS 17, and IS 30B
COREQUISITE: IS 30A
Install, configure, and administer "Active Directory" directory services, which is the directory service for Microsoft Windows 2000. Implementing and configuring "Group Policy" to centrally manage large numbers of users and computers. Prepares students for the MCSE exam 70-217. (A, CSU)

30D MCSE-1561 DIRECTORY INFRASTRUCTURE
2 units, 4 lecture hours, 1 lab hour, ( 9 weeks)
PREREQUISITE: IS 30A, IS 30B and IS 30C
Designing a Microsoft Windows 2000 directory service infrastructure in an enterprise environment. Identifying business and organizational needs that impact the design of Active Directory directory services. Key decision points for naming, delegation of authority, domain design, and site topology design. Prepares students for the MCSE examination number 70-219 (A, CSU)

## 30E MCSE-1562 NETWORK SERVICES

2 units, 4 lecture hours, 1 lab hour, ( 9 weeks)
PREREQUISITE: IS 30A, IS 30B and IS 30C
Designing a Microsoft Windows 2000 networking services infrastructure that supports the required network applications. Basic functionality, security, availability, and performance features of each networking service as aspects of a networking services design. Prepares students for the MCSE exam 70-221. (A, CSU)

## 30F MCSE-2150 NETWORK SECURITY

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: IS 30A, IS 30B and IS 30C
Designing a security framework for small, medium, and enterprise networks by using Microsoft Windows 2000 technologies. Prepares students for the MCSE exam 70-220. (A, CSU)

## 30G MCSE-836 PROXY SERVER

4 units, 4 lecture hours, 1 lab hour
PREREQUSITE: IS 30A, IS 30B and IS 30C
Planning, installing, configuring, managing resources, monitoring, optimizing, and troubleshooting a proxy server that incorporates Microsoft Windows Proxy Server 2.0. Prepares students for the MCSE examination number 70-088. (A, CSU)

## 32 POWERPOINT

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks) PREREQUISITE: None.
Using PowerPoint to create presentations. Topics include designing presentations, creating presentations, adding effects, running a presentation, and creating support documents for the presentation. (A, CSU)

## 33 BEGINNING JAVA PROGRAMMING

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 39)
PREREQUISITE: IS 15 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

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Course Descriptions
Introduction to developing Java Applets and applications using Java programming language. Emphasis on object-orientated programming, control structures, methods, arrays, strings, inheritance, and graphics. (A, CSU, UC)

## 34 ADVANCED JAVA PROGRAMMING

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: IS 33. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Introduction to developing Java Applets and applications using the Java programming language. Emphasis on object-orientated programming, control structures, method, arrays, strings, inheritance, and graphics. (A, CSU, UC)

## 36 BEGINNING C++ PROGRAMMING

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: IS 12 or IS 15.
Software development using the C++ programming language. Emphasis on object-oriented design, computations, strings, pointers, functions, classes, and objects. (CAN CSCI 16) (A, CSU, UC)

## 37 ADVANCED C++ PROGRAMMING

3 units, 3 lecture hours, 1 lab hour PREREQUISITE: IS 36.
Build on the C++ programming concepts covered in the beginning class. How to design and use loops, decisions, structures, functions, objects, and classes. How to use arrays, pointers, memory allocations, linked lists, sorting techniques, operator overloading, inheritance and graphics. (A, CSU, UC)

## 40 INTERNET BASICS

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(Formerly Information Systems 7)
ADVISORY: IS 12 or IS 15 recommended.
Hands-on introduction to the Internet and the World Wide Web, including the use of e-mail, Usenet news groups, Gopher, FTP, and Telenet. Brief introduction into the hypertext markup language (HTML) and creating a web page. History of the Internet, how to get connected to the Internet from your home or office computer, Internet ethics, and Netiquette. (A, CSU)

## 41 WORLD WIDE WEB RESEARCH

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(Formerly Information Systems 8)
ADVISORY: IS 12 or IS 15 recommended.
Using the World Wide Web for research. Topics include browsers, search engines, Boolean logic, and URLs. Requires preparing and presenting reports from the research. (CANCSCI 24) (A, CSU)

## 46 ADVANCED MICROSOFT OFFICE

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: IS 25. ADVISORY: IS40 and IS 47 recommended.
Advanced integration of the major software components of Microsoft Office Suite: Word, Excel, Access, PowerPoint, and Outlook. Includes the use of Visual Basic for Applications (VBA) to create macros. Advanced topics such as style sheets, 3-D workbooks, file linking, multiple table queries, macros and protyping. (A, CSU)

## 47 VISUAL BASIC

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 35)
PREREQUISITE: IS 15. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Introduction to programming in Visual Basic. Development of applications using standard Windows elements such as command buttons, and check, option and list boxes. Emphasis on structured program design, including debugging, testing, and documentation. (CAN CSCI 6) (A, CSU, UC)

## 49 ADVANCED VISUAL BASIC

3 units, 3 lecture hours, 1 lab hour.
PREREQUISITE: IS 47. ADVISORY: Eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

Introduction to programming databases in Visual Basic. A solid foundation for working with database theory to create a fully databaseenabled Visual Basic application. Database tutorials, database basics, tables, records, fields, field types, primary and foreign keys, referential integrity, using Microsoft Access, the Visual Basic Data Control. (A, CSU)

## 74 BEGINNING EXCEL

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (See
also Business \& Technology 24), (Formerly
Information Systems 24)
ADVISORY: Eligibility for English 125 and 126 or 153 or ESL 67 and 68 and Math 101 recommended.

Creating a worksheet, formatting the worksheet, using formulas and functions, and creating graphs. (A, CSU)

## 231 NETWORK+ PREPARATION

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks)

PREREQUSITE: IS 15. COREQUISITE: IS 17.
Networking communications asthey relate to analyzing and evaluating accountability of new technology, network engineering and documentation, telephone systems and telecommunications, synchronous optical networks, training, ISDN lines, and satellite communications.

## 238 A+ SYSTEMS SOFTWARE

3 units, 3 lecture hours, 1 lab hour PREREQUSITE: IS 15.
Skills for computer software support: installation, configuration, diagnosing and troubleshooting system software, basic networking, memory management, and customer satisfaction.

## 239 INET+ PREPARATION

3 units, 3 lecture hours, 1 lab hour
PREREQUSITE: IS 15.
Internet basics, Internet clients, Web development, networking, Internet security, and business concepts.

## 260 COMPUTER SKILLS LAB

1 unit, 3 lab hours, (Repeats = 3), (Formerly
Computer Information Systems 60 and Information
Systems 60)
PREREQUSITE: None.
Supervised use of microcomputers. Reinforcement of concepts from classroom studies and development of problem solving abilities on an independent basis. Grade based on hours worked in lab.

## 261 INTERNET SKILLS LAB

.2-1 unit, .6-3 lab hours, (16 weeks), (Repeats = 3), (Credit/No Credit), (Formerly Information Systems 61)

PREREQUISITE: None.
Supervised use of the Internet. Reinforcement of concepts from classroom studies and development of problem solving abilities on an independent basis. Grade based on hours worked in lab.
(a) .2 units for minimum of 10 hours, maximum of 12 hours;
(b) .4 units for minimum of 19 hours, maximum of 21 hours;
(c) .6 units for minimum of 29 hours, maximum of 31 hours;
(d) .8 units for minimum of 39 hours, maximum of 44 hours;
(e) 1 unit for minimum of 48 hours.

## 272 INTRODUCTION TO COMPUTERS

1 unit, 1 lecture hour, (Formerly Information Systems 72)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to common computer terminology, brief examination of hardware and software, and experience using DOS and Windows.

## 275 ACCELERATED LOTUS

1 unit, 1 lecture hour, 1 lab hour, (See also BT 275), (Formerly Information Systems 75)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating a worksheet, formatting the worksheet, and using formulas and functions.

## 276 ACCELERATED DBASE

1 unit, 1 lecture hour, 1 lab hour (See also BT 276),
(Formerly Information Systems 76)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating databases, entering data, modifying database file structures, designing queries, and printing.

## 277 ACCELERATED EXCEL

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(See also BT 277), (Formerly Information Systems 77)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating a spreadsheet, formatting the spreadsheet, using formulas and functions and printing a spreadsheet.

## 278 ACCELERATED ACCESS

1 unit, 1 lecture hour, 1 lab hour, (See also BT 278),
(Formerly Information Systems 78)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creating databases, entering data, modifying database file structures, designing queries, and printing using Access.

## JAPANESE see foreign languages

## JOURNALISM (JOURN)

## 1 INTRODUCTION TO MASS COMMUNICATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Acritical study of American mass media and a comparison with other mass communication systems throughout the world. Course surveys books, newspapers, magazines, television, radio, film, press services, and the support systems of advertising and public relations after reviewing communication theory. (CANJOUR 4) (A, CSU, UC)

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Course Descriptions

## 2 INTERPRETING CURRENT EVENTS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Analysis and discussion of important world news events. Readings in newspapers and magazines focus on interpreting and evaluating information in light of journalistic objectivity, propaganda, government censorship and the influence of various groups on news gathering. (A, CSU)

## 3 NEWSWRITING

3 units, 2 lecture hours, 3 lab hours
ADVISORY: Eligibility for English 1A recommended.
Guided reporting and writing of a variety of news stories. Includes the basics of news writing, methods and practices, interviewing, feature writing, legal and ethical principles. (CANJOUR 2) (A, CSU)

## 5 NEWSPAPER PRODUCTION

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3)
ADVISORY: For reporters and editors, Journalism 3; for photographers, demonstrated ability using 35 mm camera; for artists, demonstrated ability recommended.

Practice in newspaper production. Evaluated writing, editing, photography, layout and design as a staff member of the college newspaper. (A, CSU)

## 6 MAGAZINE STAFF

3 units, 1 lecture hour, 6 lab hours, (Repeats = 3)
ADVISORY: Eligibility for English 1A recommended.
Practice in magazine production. Evaluate writing, editing, photography, layout, and design as a staff member of the college magazine. (A, CSU)

## 10 INTRODUCTION TO BROADCAST JOURNALISM

3 units, 3 lecture hours
A survey course in broadcast journalism. Economic, social, and legal controls on broadcasting within a framework of the historical development of radio and television. Course will include emphasis on the knowledge and skills needed for producing broadcast news, including writing, interviewing, and anchoring a news segment. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group
interaction. Collaborative learning activities specific to journalism. Learning objectives established specific to journalism. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## LABORATORY ASSISTANT (LASST)

## 159 LABORATORY ASSISTANT

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: Verification of eligibility by instructor and division dean.

Opportunity to work independently with and assist instructor in subject area. Student must register no later than the third week of a regular semester and no later than the end of the first week of a summer session. (A)

## LIBRARY SKILLS (LibskL)

## 1 INFORMATION COMPETENCY/RESEARCH SKILLS

1 unit, 1 lecture hour (Repeats =1)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to research skills for college students, including basic concepts of information, its organization, location, evaluation, and use. Students will learn how to use print resources, electronic information retrieval systems, the Internet as a reference tool, and style manuals.. (A, CSU)

## LIBRARY TECHNOLOGY (LTtec)

## 51 INTRODUCTION TO LIBRARY SERVICE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Explores the general organization of various types of libraries and their materials. An overview of library service from past to present and its role in society. (A, CSU)

## 52 LIBRARY TECHNICAL SERVICES

3 units, 3 lecture hours
ADVISORY: Library Technology 51 and 55 recommended.
Introduction to technical services: acquisitions and processing of materials, cataloging including print and MARC, Library of Congress and Dewey classification systems and automated systems. (A, CSU)

## 54 LITERATURE AND SERVICES FOR YOUTH

3 units, 3 lecture hours
ADVISORY: Library Technology 51 and 55 recommended.
Exploration of children and young adult areas of literature. Library management skills, collection development, information services and programs. (A, CSU)

## 55 LIBRARY PUBLIC SERVICE

3 units, 3 lecture hours
ADVISORY: Library Technology 51 recommended.
Introduction to circulation control systems; reference and readers' advisory; inter-library loans, copyright issues, publicity, displays and public relations; overview of supervision, collection maintenance, and other current practices. (A, CSU)

## 56 INFORMATION TECHNOLOGY

3 units, 3 lecture hours
ADVISORY: Library Technology 51 and 55 recommended.
Introduction to the selection, organization and use of nonprint materials, and the use and maintenance of hardware. Working with VCRs, computers, projection equipment, transparencies, videos, videodiscs, CD-ROMs, peripherals and telecommunications equipment. (A, CSU)

57 REFERENCE: PRINT AND ONLINE SOURCES
3 units, 2 lecture hours, 2 lab hours.
ADVISORY: Library Technology 51 and 55 recommended.
Introduction to Library Reference Services, research methodologies, standard reference sources, utilizing print, nonprint and electronic format types. Reference interview techniques and style and collection development issues related to library reference services. (A, CSU)

## LINGUISTICS (LING)

## 4 STRUCTURE OF ENGLISH

3 units, 3 lecture hours, (See also English 4)
PREREQUISITE: Eligibility for English 125 and 126 or English 153 or ESL 67 or 68.

The principles of the English spelling system, word formation and morphology, and basic and advanced grammatical analysis. (A, CSU, UC)

10 INTRODUCTION TO LANGUAGE
3 units, 3 lecture hours
PREREQUISITE: Eligibility for English 125 and 126 or English 153 or ESL 67 or 68. ADVISORY: Eligibility for English 1A recommended.

Examination of the nature of language, its historical development, its structural elements, and the stages of language acquisition. Em-
phasis on systematic linguistic description of language knowledge and usage. Recommended for liberal studies majors. (A, CSU-GE, UC, I)

## MANAGEMENT (мGMT)

## 10 INTRODUCTION TO BUSINESS

3 units, 3 lecture hours, (See also Business
Administration 10)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A survey of the basic business areas: economic systems, management, marketing, finance, operations, human resources, law, entrepreneurship, and international business. (A, CSU, UC)

## 10H HONORS INTRODUCTION TO BUSINESS

3 units, 3 lecture hours, (See also Business
Administration 10 H )
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in college catalog.

A survey of the basic business areas: economic systems, management, marketing, finance, operations, human resources, law, entrepreneurship, and international business, with enrichment and service learning activities and linkages to a Business Economics Honors colloquium. (A, CSU)

## 11 APPLIED ECONOMICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Political implications of economic issues. Application of basic economic concepts. Primarily issue oriented rather than theory oriented. (A, CSU)

## 31 HUMAN RESOURCES MANAGEMENT

3 units, 3 lecture hours, (See also Business
Administration 31)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Human resource planning, recruitment, selection, training and development, evaluation, compensation, labor relations, and motivation. (A, CSU)

33 HUMAN RELATIONS IN BUSINESS
3 units, 3 lecture hours, (See also Business
Administration 33)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Emphasis on employee's interaction with coworkers, clients, supervisors/management, and the organization. Emphasis on communication, societal and cultural differences, conflict resolution, career selection and entry, interpersonal relations, motivation, attitudes, and group dynamics. Cases utilized. (A, CSU)

## 40 SUPERVISION AND LEADERSHIP SKILLS

3 units, 3 lecture hours, (See also Business
Administration 40), (Formerly Management 39)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Focus on first-level supervision. Emphasis on planning, organizing, staffing, directing, and controlling. (A, CSU)

## 43 MANAGEMENT AND TACTICAL PLANNING

3 units, 3 lecture hours, (See also Business
Administration 43)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Organization and systems, planning, MBO, decisions, communicating and motivation. (A, CSU)

## MARKETING (mkTG)

## 10 PRINCIPLES OF MARKETING

3 units, 3 lecture hours, (See also Fashion
Merchandising 10)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Creative management and research involving pricing, promotion, place, and physical distribution of profitable products. (A, CSU)

## 11 SALESMANSHIP

3 units, 3 lecture hours, (Spring only), (See also
Fashion Merchandising 21)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Personal selling and the development of techniques for a successful sales personality; buying motives, required product knowledge and the selling process. Career opportunities in the sales field. (A, CSU)

## 12 ADVERTISING AND PROMOTION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Consumer psychology, media study, and advertising budgets. Communication process; basic art layout and copy composition; speakers and films. (A, CSU)

## 14 RETAILING

3 units, 3 lecture hours, (See also Fashion
Merchandising 14)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the basic retail store operation functions of personnel management, merchandise buying, merchandise promotion, security, and careers. (A, CSU)

## 17 VISUAL MERCHANDISING

3 units, 2 lecture hours, 2 lab hours, (See also
Fashion Merchandising 28)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Modern display techniques, equipment, materials, and analysis of current display methods as they apply to creating a store's image. Laboratory exercises to include planning, executing, and evaluating a variety of displays including signage, cases, windows, and banners. Field trips. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to marketing. Learning objectives established specific to marketing. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 MARKET RESEARCH

3 units, 3 lecture hours
ADVISORY: BA/MGMT 10 and eligibility for English 25 and 26 or English 53 or ESL 67 and 68 and Math 1 recommended.

Focus on basics of market research. Emphasis on ethics, planning, design, data collection, analysis and presentation. (A, CSU)

## 250 COMPUTERIZED MARKETING

1 unit, 2 lecture hours, 1 lab hour, ( 9 weeks),
(Repeats $=1$ ), (Formerly Marketing 50)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A computerized marketing simulation which allows students to determine, analyze, and interpret basic marketing decisions in a realistic competitive environment.

## 251 INTRODUCTION TO SALES AND MARKETING

1 unit, 1 lecture hour, (Formerly Marketing 51)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Emphasis on marketing concepts, strategies, and selling methods.

## 252 CUSTOMER SERVICE

1 unit, 1 lecture hour, (Formerly Marketing 52)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Overview of effective customer issues and effective verbal and nonverbal communication.

## 253 PERSONAL DEVELOPMENT

1 unit, 1 lecture hour, (Formerly Marketing 53)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to developing and maintaining a positive attitude, Pygmalion theory of self-fulfilling prophecy, methods to deal with stress, and tools to help improve self-esteem.

## 254 BUSINESS PRESENTATION

1 unit, 1 lecture hour, (Formerly Marketing 54)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Overview of sales and effective sales presentations. Tools used by effective speakers. Overcoming fear of speaking in public.

## 255 TELEMARKETING

1 unit, 1 lecture hour, (Formerly Marketing 55)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to telemarketing; overview of the telecommunications network; usage of telephone systems, modems, fax machines, and the Internet.

256 CALL CENTER TELEMARKETING
1 unit, 1 lecture hour
PREREQUSITE: Marketing 255
Introduction to call center telemarketing; overview of call center software; usage of telephone system and call center software.

## MATHEMATICS (МАТн)

## 4A TRIGONOMETRY

4 units, 4 lecture hours, (Formerly Math 4)
PREREQUISITE: Math 2 and Math 3 or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Angles, trigonometric and inverse trigonometric functions, right and oblique triangles, graphs, identities, trigonometric equations, vectors, polar coordinates, DeMoivre's Therorem, and applications. (CAN MATH 8) (A, CSU-GE, UC, I)

## 4B PRECALCULUS

4 units, 4 lecture hours
PREREQUISITE: Math 4A or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Equations and inequalities; polynomial, rational, exponential, logarithmic, and trigonometric functions; graphing, analytical geometry and conic sections; vectors; systems of equations and matrices; binomial theorem, mathematical induction, sequences, and series. (CAN MATH 16) (A, CSU-GE, UC, I)

## 5A MATHEMATICAL ANALYSIS

4 units, 4 lecture hours
PREREQUISITE: Math 4B or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to differential and integral calculus, analytical geometry, differentiation and integration of functions, limits continuity, the Fundamental Theorem of Calculus, and applications of differentiation. (CAN MATH 18) (A, CSU-GE, UC, I)

## 5B MATHEMATICAL ANALYSIS II

4 units, 4 lecture hours
PREREQUISITE: Math 5Aor equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Applications and techniques of integration including logarithmic, exponential, trigonometric, and transcendental functions; conic sections; infinite series; differential equations; approximations. (CANMATH 20) (A, CSU-GE, UC, I)

## 6 MATHEMATICAL ANALYSIS III

4 units, 4 lecture hours
PREREQUISITE: Math 5B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Solid analytic geometry; partial differentiation; integral calculus of multi-variable functions; two and three dimensional vectors; vector
valued functions; topics in vector calculus including Green's, Diver gence, and Stoke's Theorems. (CAN MATH 22) (A, CSU-GE, UC, I)

## 7 INTRODUCTION TO DIFFERENTIAL EQUATIONS

4 units, 4 lecture hours
PREREQUSITE: Math 6 or equivalent. ADVISORY: Eligibility for
English 125 and 126 or English 153 or ESL 67 and 68 recommended.
Introduction to ordinary differential equations; solutions by power series, phase planes, and Laplace Transforms; linear algebra; Fourier Series; complex variables. (CAN MATH 24) (A, CSU, UC)

10A STRUCTURE AND CONCEPTS IN MATHEMATICS
3 units, 3 lecture hours
PREREQUISITE: Math 102 and Math 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of critical thinking, sets, whole numbers, functions, numeration, computation, number theory, integers, fractions, rational numbers, decimals, and real numbers. Designed for elementary credential candidates. (A, CSU, UC)

## 10B STRUCTURE AND CONCEPTS IN MATHEMATICS II

3 units, 3 lecture hours
PREREQUSITE: Math 10A ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of statistics, probability, geometry, measurements, transformations, symmetries, and tilings. Designed for elementary credential candidates. (A, CSU-GE, UC)

## 11 ELEMENTARY STATISTICS

4 units, 4 lecture hours
PREREQUSITE: Math 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Descriptive measures, probability, probability distributions, sampling distributions, central limit theorem, one and two sample hypothesistests, estimation, correlation, and regression. (CANSTAT 2) (A, CSUGE, UC, I)

## 21 FINITE MATHEMATICS

3 units, 3 lecture hours, (See also Decision Science
21), (Formerly Math 31)

PREREQUSITE: Math 3 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Applications of linear, exponential, and logarithmic functions, matrix operations, and inverse matrices. Linear programming techniques, mathematics of finance, probability, and counting theory. Limits, rates of change, and derivatives. (CAN MATH 12) (A, CSU-GE, UC, I)

## 26 ELEMENTARY LINEAR ALGEBRA

3 units, 3 lecture hours
PREREQUSITE: Math 5Aor equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Matrices and linear transformations, vector spaces, determinants, eigenvalues and eigenvectors. (A, CSU-GE, UC, I)

## 42 STATISTICS FOR THE BEHAVIORAL SCIENCES

4 units, 4 lecture hours, (See also Psychology 42)
PREREQUSITE: Math 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Descriptive statistics, sampling, hypothesis testing, estimation, se lected non-parametric techniques, ANOVA, and regression, with applications from psychology, biology, and social sciences. (A, CSU-GE, UC, I)

## 45 CONTEMPORARY MATHEMATICS

3 units, 3 lecture hours
PREREQUSITE: Math 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to mathematical problem solving: statistics, social choice, mathematics of shape and growth, and management science. For liberal arts students. (CAN MATH2) (A, CSU-GE)

## 48A CALCULUS WORKSHOP I

2 units, 4 lab hours
PREREQUSITE: Math 4A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Meth odology of solving math-based real-world application problems reinforced through a small group collaborative learning environment, emphasizing the algebraic, graphic, numeric, and symbolic methodologies. Targets at-risk and underrepresented students. Not open to students who have satisfactorily completed Math 5B. (A, CSU)

## 48B CALCULUS WORKSHOP II

2 units, 4 lab hours
PREREQUSITE: Math 4B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Meth odology of solving math-based real-world application problems reinforced through a small group collaborative learning environment, emphasizing the algebraic, graphic, numeric, and symbolic methodologies. Targets at-risk and underrepresented students. Not open to students who have satisfactory completed Math 5B. (A, CSU)

## 48C CALCULUS WORKSHOP III

2 units, 4 lab hours
PREREQUSITE: Math 5Aor equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Methodology for solving math-based, real-world application prob-
lems reinforced through a small group collaborative learning environment, emphasizing the algebraic, graphic, numeric, and symbolic methodologies. Targets at-risk and underrepresented students. Not open to students who have satisfactorily completed Math 5B. (A, CSU)

## 101 ELEMENTARY ALGEBRA

3 units, 5 lecture hours, (Formerly Math 1)
PREREQUISITE: Math 250, Math 260F or Math 255 or designated math placement. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Signed numbers, algebraic expressions, linear equations, exponents, polynomials, factoring, rational expressions and equations, graphing, inequalities, systems of equations, radicals, quadratic equations, and applications. (A)

## 102 PLANE GEOMETRY

3 units, 3 lecture hours, (Formerly Math 2)
PREREQUISITE: Math 101 or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Angles; parallel lines; congruent and similar triangles; circles; geometric constructions; right triangle trigonometry; application of formulas for perimeter, area, and volume of geometric figures and inductive and deductive reasoning. (A)

## 103 INTERMEDIATE ALGEBRA

3 units, 5 lecture hours, (Formerly Math B and Math 3)

PREREQUISITE: Math 101 or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Polynomial, rational, and algebraic expressions; linear, quadratic, exponential, and logarithmic functions; systems of equations and inequalities; matrices; conic sections; sequences and series; and the binomial theorem. (A)

250 COLLEGE ARITHMETIC
3 units, 3 lecture hours, (Formerly Math 50)
PREREQUISITE: Math 260C or appropriate test score.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Arithmetic operations of whole numbers, fractions, and decimals; ratio and proportions; percents; order of operations; the metric system; word problems and applications of arithmetic. Designed as a quick refresher of college arithmetic.

## 251 MATHEMATICS FOR HEALTH SCIENCES

2 units, 4 lab hours by arrangement, (Formerly Math 51)

PREREQUSITE: Math 260C or appropriate test score.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Common and decimal fractions, percentages, ratios and proportion, metric measurement, the Apothecaries' System of measurement, apothecaries; metric and household conversions, solutions, and dosages.

## 255 PRE-ALGEBRA

1-3 units, (3 units maximum), 3 lecture hours,
(Credit/No Credit), (Repeats = 2), (Formerly Math 55)
PREREQUISITE: Math 260E or Math 260F or Math 250 or appropriate placement.

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed for students who have math anxiety or those who do not feel ready for the fast pace of a traditional Math 101 class. Students will be introduced to selected topics that usually are difficult for Math 101 students (e.g., word problems).

## 260A ARITHMETIC REVIEW: WHOLE NUMBERS

1 unit, 3 lecture hours, 2 lab hours, ( 6 weeks),
(Credit/No Credit), (Formerly Math 60A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review of arithmetic involving computing with whole numbers. Emphasis on word problems and applications of whole numbers.

## 260B ARITHMETIC REVIEW: FRACTIONS

1 unit, 3 lecture hours, 2 lab hours, ( 6 weeks), (Credit/No Credit), (Formerly Math 60B)
PREREQUISITE: Math 60A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review of arithmetic involving computing with fractions. Emphasis on word problems and applications of fractions.

## 260C ARITHMETIC REVIEW: DECIMALS

1 unit, 3 lecture hours, 2 lab hours, ( 6 weeks), (Credit/No Credit), (Formerly Math 60C)
PREREQUISITE: Math 60B. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review of arithmetic involving computing with decimals. Emphasis on word problems and applications of decimals.

## 260D ARITHMETIC REVIEW: PERCENTS

1 unit, 3 lecture hours, 2 lab hours, ( 6 weeks), (Credit/No Credit), (Formerly Math 60D)
PREREQUISITE: Math 260C. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review of arithmetic involving ration, proportion, and percents. Emphasis on word problems.

## 260E ARITHMETIC REVIEW: MEASUREMENT

1 unit, 3 lecture hours, 2 lab hours, ( 6 weeks), (Credit/No Credit), (Formerly Math 60E)
PREREQUISITE: Math 260D. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review of arithmetic involving measurements. Emphasis on word problems and applications of perimeter, area, and volume.

## 260F ARITHMETIC REVIEW: PRE ALGEBRA

1 units, 3 lecture hours, 2 lab hours, ( 6 weeks), (Credit/No Credit), (Formerly Math 60F)
PREREQUISITE: Math 260E. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Review of arithmetic involving integers; solving equations; and solving word problems using algebra.

265 INTRODUCTION TO MATH PROBLEM SOLVING
2 units, 3 lecture hours, ( 12 weeks), (Credit/No
Credit), (Formerly Math 65)
PREREQUISITE: Math 260C or eligibility for Math 250.
Problem solving skills using elementary mathematic concepts. Improving deductive thinking skills, identifying patterns, reading for detail, solving word problems, strategies to overcome math anxiety, and developing calculator competence.

## 270 FUNDAMENTAL MATHEMATICS

3 units, 3 lecture hours, (Credit/No Credit), (Formerly Math 70)
PREREQUISITE: None.
Basic principles and fundamental operations of whole numbers, common fractions and mixed numbers, decimal fractions and mixed numbers, and percents.

## 277 ARITHMETIC FOR THE LEARNING DISABLED

1-2 units, (4 units maximum), 6 lab hours, (Credit/
No Credit), (Repeats = 3), (Formerly Math 77)
PREREQUISITE: None.
Review of the mechanics of arithmetic involving computing with whole numbers, fractions, decimals and percents. Includes word problems and applications of arithmetic. Designed for students with physical, communicative, and/or learning limitations.

## MEDICAL ASSISTING (MA)

## 1 LEGAL AND ETHICAL CONCEPTS

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Medical ethics, jurisprudence, and professional relations in the medical office setting as applied to the medical assistant profession and speciality fields. Assists the students in understanding the medical assistant role as an integral part of the medical profession. (A, CSU)

## 2 PHARMACOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Mathematical concepts needed to calculate a patient's medication dosage correctly combined with a detailed explanation of topics essential to understanding drug sources, legislation relating to drugs, drug reference and classification, actions and administration. (A, CSU)

## 4 OFFICE LABORATORY PROCEDURES

4 units, 3 lecture hours, 3 lab hours
ADVISORY: Biology 51 or equivalent recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Preparation of patient specimens for laboratory study or transportation. Specimen screening analysis techniques, recording of findings, laboratory safety, regulations and safety hazards. Precautionary measures relevant to specimen handling, personal and patient safety. (A, CSU)

## 5 DIAGNOSTIC AND THERAPEUTIC PROCEDURES

4 units, 3 lecture hours, 3 lab hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

Fundamentals of patient preparation for diagnostic studies. Techniques and recording of diagnostic and therapeutic procedures commonly performed in medical offices, safety standards and hazards, precautionary measures. (A, CSU)

## 6A CLINICAL TRAINING

3 units, 3 lecture hours, (Formerly Medical Assisting 60A)
ADVISORY: Biology 51 or equivalent recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Topics pertinent to medical assisting: microbiology, sterilization, aseptic technique, and assisting in physical examinations. (A, CSU)

## 6B ADVANCED TRAINING

3 units, 3 lecture hours, (Formerly Medical Assisting 60B)
PREREQUISITE: Medical Assisting 6A
Medical assisting procedures in the specialty office, assisting in surgery, handling of medical emergencies. (A, CSU)

19 OCCUPATIONAL WORK EXPERIENCE
1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to medical assisting. Learning objectives established specific to medical assisting. Sev-enty-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## MEDICAL RECORD TECHNOLOGY

## SEE HEALTH INFORMATION TECHNOLOGY

## MILITARY SCIENCE (MILSC)

## 1 INTRODUCTION TO MILITARY SCIENCE

1 unit, 1 lecture hour
PREREQUSITE: None.
Organization and function of the US Army: basic traditions, customs, and protocol. Basic leadership skills, map reading, and management techniques. Adventure training participation. (A, CSU, UC)

## 2 GENERAL MILITARY SKILLS

1 unit, 1 lecture hour
PREREQUSITE: None.
Basic soldier skills and leadership doctrines. Emphasis on basic training skills, first-aid procedures, field crafts, and leadership techniques. (A, CSU, UC)

## 11 GENERAL LEADERSHIP SKILLS

2 units, 2 lecture hours
PREREQUISITE: None.
Basic rope work to include knots and rappelling. Basics of orienteering and land navigation, basic marksmanship and military briefings. (A, CSU, UC)

## 12 BASIC LEADERSHIP AND MANAGEMENT

2 units, 2 lecture hours
PREREQUISITE: None.
Principles of leadership and resource management; group goal attainment focusing on leader, group, and situational needs. (A, CSU, UC)

## 50A LEADERSHIP LABORATORY I

1 unit, 3 lab hours, (Repeats $=1$ )
PREREQUISITE: None.
Practical work to augment classroom instruction. Weekly morning laboratories plus one field trip each semester. Voluntary attendance at all functions. (A, CSU, UC)

## 50B LEADERSHIP LABORATORY II

1 unit, 3 lab hours, (Repeats = 1)
PREREQUISITE: None.
Practical work to augment classroom instruction. Weekly morning laboratories plus one field trip each semester. Voluntary attendance at all functions, including military ball. (A, CSU, UC)

MUSIC (mus)
For information concerning course requirements for the major or minor, see page 127.

## THEORY

## 1A MUSIC THEORY I

3 units, 3 lecture hours, (Fall only)
PREREQUISITE: Music 3 or the ability to read music as determined by testing. COREQUISITE: ( Music majors only) Music 7A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Writing and analysis; fundamentals of music. Designed for the music major. (A, CSU, UC)

## 1B MUSIC THEORY II

3 units, 3 lecture hours, (Spring only)
PREREQUISITE: Music 1A. COREQUISITE: (Music majors only) Music 7A or 7B. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Writing and analysis; functional tonality, harmonization, diatonic and dominant seventh chords, and secondary function. Designed for the music major. (A, CSU, UC)

## 2A MUSIC THEORY III

3 units, 3 lecture hours, (Fall only)
PREREQUSITE: Music 1B. COREQUISITE: (Music majors only)
Music 7B (if not already completed). ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Writing and analysis; 2 voice counterpoint and fugue; chromatic harmony and forms of the 18th century; and reductive analysis. Emphasis on classical and early romantic periods. Designed for the music major. (A, CSU, UC)

## 2B MUSIC THEORY IV

3 units, 3 lecture hours, (Spring only)
PREREQUISITE: Music 2A. COREQUSITE: (Music majors only) Music 7B (if not already completed). ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Writing and analysis; late 19th and 20th century compositional practices including serial procedures and indeterminacy. Designed for the music major. (A, CSU, UC)

## 3 MUSIC FUNDAMENTALS

3 units, 3 lecture hours, 1 lab hour
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Rudiments of music: pitch; rhythm; meters, scales, keys, key signatures, intervals, rhythm, and scale dictation. Designed for the general student, the music major with limited music theory experience, the commercial music student, and the classroom teacher. (A, CSUGE, UC, I)

## 4 JAZZ/ROCK THEORY

3 units, 3 lecture hours, (Fall only)
PREREQUISITE: Music 3 or 1 A or the equivalent as determined by testing.

Twentieth century tonal, chordal, and scaler theory directly related to current jazz and popular styles. Arrange for rhythm section and various horn sections. Designed for the commercial music student. (A, CSU, UC)

## 5 BASIC SOUND SYNTHESIS AND MIDI

2 units, 2 lecture hours, 1 lab hour
PREREQUISITE: Music 3 or 1 A or 20A or equivalent. Specifically: Ability to read and play simple melodies on a keyboard.

Abasic view of the synthesizer as a source of sound and the use of the computer as a storage and manipulation device. Designed for the music major and the commercial music student. (A, CSU)

6 JAZZ/ROCK ARRANGING
3 units, 3 lecture hours, (Spring only)
PREREQUSITE: Music 4 or the equivalent as determined by testing.

Scoring and composing for jazz and popular vocal/instrumental combinations; emphasis on contemporary sound; projects will be performed. Designed for the commercial music student. (A, CSU)

## 7A EAR TRAINING: LEVEL I

1 unit, 1 lecture hour, 1 lab hour, (Credit/No Credit)
PREREQUSITE: Ability to read music or concurrent enrollment in Music 3 or Music 1A or 1B.

Dictation and sight-singing of simple rhythms, melodic intervals, and diatonic melodies. (A, CSU, UC)

## 7B EAR TRAINING: LEVEL II

1 unit, 1 lecture hour, 1 lab hour, (Credit/No Credit)
PREREQUISITE: Music 7A
Dictation and sight-singing of diatonic and chromatic melodies, harmonic intervals, compound and simple rhythms, and chords and chord progressions. (A, CSU, UC)

## 8 RECORDING ARTS

2 units, 2 lecture hours, 1 lab hour
PREREQUSITE: Music 3 or 1A or equivalent as determined by examination. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A basic view of the recording studio as a sound storage, manipulation, and reproduction facility. Designed for the music major and the commercial music student. (A, CSU)

## 9 COMPOSITION

2 units, 2 lecture hours, (Spring only)
PREREQUSITE: Music 2A or the equivalent as determined by testing and examination of student's music theory and composition work.

Writing short musical compositions; emphasis on 20th century practices; compositions performed in recital. (A, CSU, UC)

## 111 THE MUSIC BUSINESS

3 units, 3 lecture hours, (Formerly Music 11)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Survey of topics of importance to the professional musician: copyrights, publishing, contracts, promotion, and career development. (A)

## 250 PIANO TEACHING I

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1),
(Fall), (Formerly Music 50)
PREREQUISITE: Music 22 or equivalent.

Methods for teaching beginning and elementary piano students including a survey and comparison of piano books available for studio teaching. Practical suggestions for maintaining a private piano studio.

## 251 PIANO TEACHING II

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1),
(Spring), (Formerly Music 51)
PREREQUISITE: Music 22 or equivalent.
Pedagogical techniques for teaching intermediate level piano students. Performance of solo and ensemble piano literature.

## HISTORY \& APPRECIATION

## 12 MUSIC APPRECIATION

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Middle Ages through the 20th century. Concert attendance required. Designed for the general student. (A, CSU-GE, UC, I)

13 HISTORY OF MUSIC
3 units, 3 lecture hours, (Formerly Music 11)
PREREQUISITE: Ability to read music and understand musical terminology as determined by testing. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Music literature of western civilization from about 1200 to the present; emphasis on listening. Designed for the music major and the general student with a music background. Outside listening and concert attendance required. (A, CSU-GE, UC, I)

## 14 MUSIC AND DRAMA

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The world of musical theatre from its early roots in medieval passion plays and liturgical dramas through American musical theatre. Certain individual works will be studied in depth. (A, CSU-GE, UC, I)

## 16 JAZZ HISTORY AND APPRECIATION

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Vocal and instrumental jazz music from the 1890's through the present. Concert attendance required. Designed for the general student and commercial music student. (A, CSU-GE, UC, I)

## APPLIED MUSIC

## 10 JAZZ IMPROVISATION WORKSHOP

1-2 units: 1 unit, 1 lecture hour, 1 lab hour; 2 units, 1 lecture hour, 3 lab hours, (Repeats $=3$ )
ADVISORY: Ability to play an instrument at the intermediate level as determined by testing recommended.

Contemporary improvisation in small ensembles; performance may be required. Designed for the commercial music student. (A, CSU)

## 18 BASIC CONDUCTING AND SCORE READING

2 units, 2 lecture hours
PREREQUISITE: Music 1A or 3 or the equivalent as determined by testing.

Fundamentals of conducting and score reading; standard patterns and baton technique; practice with records and large and small college ensembles. Designed for the music major and the commercial music student. (A, CSU, UC)

20 BEGINNING PIANO: LEVEL 1
2 units, 1 lecture hour, 3 lab hours, (Formerly Music 20A)
PREREQUISITE: None.
Fundamentals, theory, and terminology; elementary piano technique, scales, and keyboard harmony; repertoire of easy compositions. Designed for the general student and the classroom teacher. Not intended for students who have had previous piano instruction. (A, CSUGE, UC)

21 BEGINNING PIANO: LEVEL 2
2 units, 1 lecture hour, 3 lab hours, (Repeats = 2), (Formerly Music 20B)
PREREQUISITE: Music 20 or the equivalent as determined by testing.

Progressively advancing solo and ensemble work. Baroque, classic, romantic, and 20th century literature as appropriate to the student's development level. Fingering, harmonizing melodies, sight reading, and duets. Designed for the general student and the classroom teacher. (A, CSU-GE, UC)

## 23 PIANO ENSEMBLE/ACCOMPANIST

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 3),
(Formerly Music 22)
PREREQUISITE: Music 21 or the equivalent performance skills as determined by testing.

The art of accompanying vocalists and instrumentalists. Designed for the advanced piano student. (A, CSU, UC)

## 24 ELEMENTARY VOICE: LEVEL I

1 unit, 1 lecture hour, 1 lab hour, (Formerly Music 25A)
PREREQUISITE: None.
Beginning tone production and basic voice technique; singing simple solo songs. Designed for the student with little or no formal voice training. (A, CSU-GE, UC)

## 25 ELEMENTARY VOICE: LEVEL II

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2),
(Formerly Music 25B)
PREREQUSITE: Music 24 or the equivalent as determined by testing.

Progressively advancing solo and small ensemble work; tone production interpretation. Designed for the general student. (A, CSU-GE, UC)

27 BEGINNING GUITAR: LEVEL I
2 units, 1 lecture hour, 2 lab hours, (Formerly Music 28A)
PREREQUSITE: Own instrument required.
Classical and social guitar playing styles: playing techniques, rhythms, theory, and note reading. Designed for the general student and classroom teacher. Not open to guitarists who read music. (A, CSUGE, UC)

## 28 BEGINNING GUITAR: LEVEL II

2 units, 1 lecture hour, 2 lab hours, (Repeats = 2), (Formerly Music 28B)
PREREQUSITE: Music 27 or ability to read music. Must have basic understanding of and playing skill in the classical guitar as determined by testing. Own instrument required.

Continuation and expansion of knowledge and techniques learned in 27. Emphasis on classical guitar techniques: reading, left- and righthand techniques, positions, extension of the fingerboard, rhythms, meters, multi-line music, theory, and classical music styles. Designed for the serious student of guitar. (A, CSU-GE, UC)

## INTERMEDIATE/ADVANCED ENSEMBLES AND INDIVIDUAL LESSONS

1-2 units: 1 unit, 1 lecture hour, 1 lab hour; 2 units, 1 lecture hour, 3 lab hours, (Repeats $=3$ )
The 1 -unit class is recommended for the non-music major. Studies in technical, stylistic, and aesthetic elements of the performing repertory from the standard literature of ensemble music. Ensemble per formance required.

The 2 -unit class is recommended for the music major. Studies in
technical, stylistic, and aesthetic elements of the performing repertory from the standard literature of solo and ensemble music. Weekly individual instruction; ensemble and solo performance required; designed to help transferring music majors pass jury exams on their instruments at four-year colleges and universities.

## 22 INTERMEDIATE/ADVANCED PIANO

(Formerly Music 21), (Repeats = 2)
PREREQUSITE: Music 21 or the equivalent as determined by testing. (A, CSU, UC)

## 26 INTERMEDIATE/ADVANCED VOICE

PREREQUSITE: Music 25 or intermediate or advanced level ability as determined by testing. (A, CSU, UC)

## 29 INTERMEDIATE/ADVANCED GUITAR

PREREQUSITE: Music 28 or the equivalent performance skills as determined by testing. (A, CSU, UC)

## 42A INTERMEDIATE/ADVANCED BRASS

(BRASS CHOIR)
(Formerly Music 42)
ADVISORY: Ability to perform advanced high school band music or the equivalent performance skills as determined by audition recommended. (A, CSU, UC)

## 42B INTERMEDIATE/ADVANCED WOODWINDS

(WOODWIND CHOIR)
(Formerly Music 43)
ADVISORY: Ability to perform advanced high school band or orchestra music or the equivalent performance skills as determined by audition recommended. (A, CSU, UC)

## 42C INTERMEDIATE/ADVANCED STRINGS

(STRING ORCHESTRA)
(Formerly Music 44)
ADVISORY: Ability to perform advanced high school band or or chestra music or the equivalent performance skills as determined by audition recommended. (A, CSU, UC)

## 42D INTERMEDIATE/ADVANCED PERCUSSION

(PERCUSSION ENSEMBLE)
(Formerly Music 46)
ADVISORY: Ability to perform advanced high school band or or chestra music or the equivalent performance skills as determined by audition recommended. (A, CSU, UC)

## 49 ADVANCED LARGE ENSEMBLES

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: 4 semesters of Music 30, 35, 40, 41, or 46.
Acontinuation of Music 30, 35, 40, 41, and 46. Advanced study of large ensemble literature, vocal or instrumental. (A, CSU, UC)

## 382 INTERMEDIATE/ADVANCED BRASS

(BRASS ENSEMBLE)
0 units, 1 lecture hour, 3 lab hours, (Unlimited
Repeats), (Formerly Music 82)
ADVISORY: Advanced high school band or the equivalent performance skills as determined by audition recommended.

Studies in technical, stylistic, and aesthetic elements of the performing repertory from the standard literature of ensemble music. Ensemble performance required.

## 383 INTERMEDIATE/ADVANCED WOODWINDS (WOODWIND CHOIR)

0 units, 1 lecture hour, 3 lab hours, (Unlimited
Repeats), (Formerly Music 83)
ADVISORY: Advanced high school band or the equivalent performance skills as determined by audition recommended.

Studies in technical, stylistic and aesthetic elements of the performing repertory from the standard literature of ensemble music. Ensemble performance required.

## 384 INTERMEDIATE/ADVANCED STRINGS

(STRING ORCHESTRA)
0 units, 1 lecture hour, 3 lab hours, (Unlimited
Repeats), (Formerly Music 84)
ADVISORY: Advanced high school band or the equivalent performance skills as determined by audition recommended.

Studies in technical, stylistic, and aesthetic elements of the performing repertory from the standard literature of ensemble music. Ensemble performance required.

## 386 INTERMEDIATE/ADVANCED PERCUSSION (PERCUSSION ENSEMBLE)

0 units, 1 lecture hour, 3 lab hours, (Unlimited
Repeats), (Formerly Music 86)
ADVISORY: Advanced high school band or percussion ensemble experience or the equivalent performance skills as determined by audition recommended.

Studies in technical, stylistic and aesthetic elements of the performing repertory from the standard literature of ensemble music. Ensemble performance required.

## LARGE PERFORMING ORGANIZATIONS

30 COLLEGE CHOIR
2-3 units: 3 units, 2 lecture hours, 4 lab hours; 2
units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Ability to perform advanced high school choral music or the equivalent performance skills as determined by audition recommended.

Study and performance of choral music from all periods. Concert and tour participation required. (A, CSU-GE, UC)

## 32 SUMMER MUSIC THEATRE

3-6 units: 3 units, 6 lecture hours, 9 lab hours per week (prorated for summer school); 6 units, 11 lecture hours, 16 lab hours per week (prorated for summer school). (Summer only), (Repeats = 3), (See also Theatre Arts 24), (Formerly Music 24)
ADVISORY: Previous band or orchestra experiences as determined by audition recommended.

Rehearsal and performance of a full-length musical theatre play for public presentation. Students may elect to receive credit in either or both departments providing requirements for both courses are met. (A, CSU-GE, UC)

## 34 FRESNO CHORALE

1 unit, 1 lecture hour, 2 lab hours, (Repeats = 3), (Formerly Music 31)
ADVISORY: Previous choir experience as determined by testing recommended.

Study and performance of choral music from all periods. Concert and tour participation required. (A, CSU, UC)

35 CITY SINGERS (CHAMBER SINGERS)
2-3 units: 3 units, 2 lecture hours, 4 lab hours; 2 units, 1 lecture hour, 3 lab hours, (Repeats = 3), (Formerly Music 33)
PREREQUISITE: Ability to perform advanced high school choral music or the equivalent performance skills as determined by audition. COREQUISITE: Music 30.

Study and performance of music literature from all eras with a specialization in 20th century and vocal jazz. Concert and tour participation required. (A, CSU, UC)

## 36 WOMEN'S CHORALE

1 unit, 1 lecture hours, 2 lab hours, (Repeats = 3)
ADVISORY: Ability to perform advanced high school and choral music or the equivalent performance skills as determined by audition recommended.

256 Fresno City College
Course Descriptions
Study and performance of choral music from all periods specializing in repertoire for treble choir. Concert and tour participation required. (A, CSU, UC)

## 39 OPERA AND MUSICAL THEATRE WORKSHOP

2 units, 1 lecture hour, 3 lab hours, (Credit/No
Credit), (Repeats $=3$ ), (Formerly Music 27)
PREREQUISITE: Music 26 or the equivalent as determined by testing.

The rehearsal, study, and performance of scenes from operas and Broadway musicals. (A, CSU-GE, UC)

## 40 CONCERT BAND

2-3 units: 3 units, 2 lecture hours, 4 lab hours; 2
units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Ability to perform advanced high school band music or the equivalent performance skills as determined by audition.

Study and performance of a wide variety of concert band and wind ensemble literature. Performances at selected college events. Participation in all performances required. (A, CSU-GE, UC)

## 41 JAZZ ENSEMBLE

1-2 units: 1 unit, 1 lecture hour, 1 lab hour; 2 units,
1 lecture hour, 3 lab hours, (Repeats $=3$ )
ADVISORY: Advanced high school band, orchestra, or jazz ensemble experience or the equivalent performance skills as determined by audition recommended.

Study and performances of jazz, and jazz-rock, and Latin-jazz literature. Participation in concerts and jazz festivals required. (A, CSU, UC)

## 46 SYMPHONY ORCHESTRA

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3),
(Formerly Music 45)
ADVISORY: Ability to perform advanced high school band or or chestra music or the equivalent performance skills as determined by audition recommended.

The study and performance of orchestral literature of all eras. Combines college students and community members. Participation in all performances required ( two or three each semester). (A, CSU-GE, UC)

## 47 JAZZ/ROCK COMBO

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
PREREQUISITE: Music 10 or the equivalent as determined by testing.

Performance and analysis of contemporary commercial/jazz literature for the small ensemble. Designed for the music major and the commercial music student. (A, CSU)

## 48 LATIN JAZZ

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3),
(See also Chicano-Latino Studies 18)
ADVISORY: Advanced high school band, orchestra, or jazz ensemble experience or the equivalent performance skills as determined by audition recommended.

Study and performance of Latin-jazz, salsa, and Afro-Cuban music. Participation in concerts and jazz festivals required. (A, CSU, UC)

## 380 CONCERT BAND

0 units, 2 lecture hours, 4 lab hours, (Unlimited
Repeats), (Formerly Music 80)
ADVISORY: High school or college advanced band or orchestra or the equivalent performance skills as determined by audition recommended.

FALL SEMESTER: Study and performance of a wide variety of concert band and wind ensemble literature. Performances at selected college events. Participation in all performances required.

SPRING SEMESTER: Study and performance of a wide variety of concert band and wind ensemble literature. Participation in all performances required. Designed for older adult students who have a background in music performance and wish to continue to participate in a music group.

## 381 JAZZ ENSEMBLE

0 units, 1 lecture hour, 3 lab hours, (Unlimited
Repeats), (Formerly Music 81)
ADVISORY: Advanced high school band, orchestra, or jazz ensemble experience or the equivalent performance skills as determined by audition recommended.

Study and performances of jazz, jazz-rock, and Latin-jazz literature. Participation in concerts and jazz festivals required. Designed for older adultstudents who have a background in music performance and wish to continue to participate in a music group.

## 385 SYMPHONY ORCHESTRA

0 units, 1 lecture hour, 3 lab hours, (Unlimited
Repeats), (Formerly Music 85)
ADVISORY: Advanced high school band or orchestra or the equivalent performance skills as determined by audition recommended.

The study and performance of orchestral literature of all eras. Open to both college students and community members. Participation in all performances required (two or three each semester). Designed for older adult students who have a background in music performance and wish to continue to participate in a music group.

## 387 COLLEGE CHOIR

0 units, 2 lecture hours, 4 lab hours, (Unlimited Repeats), (Formerly Music 87)
ADVISORY: Advanced high school choral music experience or the equivalent performance skills and pitch matching as determined by audition recommended.

Study and performance of choral music from all periods. Concert and tour participation required.

## 388 CITY SINGERS (CHAMBER SINGERS)

0 units, 1 lecture hour, 4 lab hours, (Unlimited
Repeats), (Formerly Music 88)
PREREQUISITE: Advanced high school choral music experience or the equivalent performance skills as determined by testing.

Study and performance of music literature from all eras with a specialization in 20th century and vocal jazz. Concert and tour participation required.

389 OPERA AND MUSICAL THEATRE WORKSHOP
0 units, 1 lecture hour, 3 lab hours, (Unlimited
Repeats), (Formerly Music 89)
PREREQUISITE: Music 26 or the equivalent performance skills as determined by testing.

The rehearsal, study, and performance of scenes from operas and Broadway musicals. Designed for older adult students who have a background in music performance and wish to continue to participate in a music group.

## NATIVE AMERICAN STUDIES

SEE AMERICAN INDIAN STUDIES

## NURSING

## REGISTERED NURSING (RN)

## 1 FUNDAMENTAL NURSING THEORY AND PROCESS

4 units, 4 lecture hours
PREREQUISITE: Acceptance into the Registered Nursing Program: English 125 or English 153 or ESL 67; Math 101; Biology 20 and Biology 22, or Biology 24; Biology 31; Chemistry 3A; Psychology 2; and Sociology 1A. All course work must be completed with a grade of "C" or better. COREQUISITE: Registered Nursing 2. ADVISORY: English 1Arecommended.

Beginning theoretical concepts and principles of nursing. Introduction to problem solving, interpersonal and critical thinking skills. (A, CSU)

## 2 INTRODUCTION TO NURSING PROCESS CLINICAL

4 units, 12 lab hours, (Credit/No Credit)
PREREQUISITE: Acceptance into the Registered Nursing Program: English 125 or English 153 or ESL 67; Math 101; Biology 20 and Biology 22, or Biology 24; Biology 31; Chemistry 3A; Psychology 2; and Sociology 1A. All course work must be completed with a grade of "C" or better. COREQUISITE: Registered Nursing 1. ADVISORY: English 1Arecommended.

Utilization of basic nursing skills, concepts, and procedures in hospitals, community agencies, and campus nursing skills laboratory. (A, CSU)

## 3 INTERMEDIATE MEDICAL-SURGICAL NURSING

2.5 units, 5 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 4.

Medical-surgical nursing concepts, basic pathology, and related nursing management for adults and geriatric patients. (A, CSU)

## 4 INTERMEDIATE MEDICAL-SURGICAL CLINICAL

 LABORATORY2.5 units, 15 lab hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better. COREQUSITE: Registered Nursing 3.

Medical-surgical nursing of the adult patients, including geriatrics; clinical experience in hospitals and community agencies. (A, CSU)

## 5 PERINATAL NURSING AND ADULT REPRODUCTIVE <br> HEALTH NURSING

2.5 units, 5 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 6.

Family-centered approach to birth, the childbearing cycle and the neonate; physiology of pregnancy and labor, mother-infant bonding. Male and female reproductive health disorders and benign vs. malignant breast diseases. (A, CSU)

6 PERINATAL NURSING AND ADULT REPRODUCTIVE HEALTH NURSING CLINICAL
2 units, 12 lab hours, ( 9 weeks)
PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 5.

Care of maternity, neonatal and gynecological patients in clinical settings. Nursing responsibilities to the family during child-bearing and child-rearing process. Male and female reproductive health disorders and breast disease.(A, CSU)

## 7 ADVANCED MEDICAL-SURGICAL NURSING (A)

2.5 units, 5 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 3 and 4 with a grade of " $C$ " or better. COREQUSITE: Registered Nursing 8.

Advanced medical-surgical theoretical concepts and principles of adults with problems related to cardiovascular, hematological, vascular, respiratory and renal systems. (A, CSU)

## 8 ADVANCED MEDICAL-SURGICAL NURSING ADULTS (A) CLINICAL

2.5 units, 15 lab hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 3 and 4 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 7.

Advanced principles and practices in the clinical setting of medi-cal-surgical nursing of adults with problems related to cardiovascular, hematological, vascular, respiratory, and renal systems. (A, CSU)

## 9 PSYCHIATRIC AND COMMUNITY MENTAL HEALTH

NURSING
2.5 units, 5 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 10.

Theoretical concepts comprising a comprehensive overview of functional and dysfunctional human behavior, therapeutic communication, age related problems, treatment modalities, delivery of mental health care services, mental health legislation, and the role and responsibilities of the psychiatric/mental health nurse. (A, CSU)

## 10 PSYCHIATRIC AND COMMUNITY MENTAL HEALTH

 NURSING CLINICAL2.5 units, 15 lab hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 9.

Clinical application of the principles and practices of psychiatric nursing of adults hospitalized with problems related to biopsychosocial dysfunction of neurotic, psychotic and personality disorders. (A, CSU)

## 11 ADVANCED MEDICAL-SURGICAL (B) NURSING

2.5 units, 5 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 3 and 4 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 12.

Theoretical concepts of advanced principles of medical-surgical nursing of adults with problems related to mobility, level of consciousness, homeostasis, nutrition, elimination, and endocrine regulatory patterns. (A, CSU)

12 ADVANCED MEDICAL-SURGICAL (B) NURSING CLINICAL
2.5 units, 15 lab hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 3 and 4 with a grade of " $C$ " or better. COREQUISITE: Registered Nursing 11.

Clinical application of advanced principles and practices of medi-cal-surgical nursing of adults hospitalized with problems related to mobility, level of consciousness, homeostasis, nutrition, elimination, and endocrine regulatory patterns. (A, CSU)

## 13 NURSING OF INFANTS AND CHILDREN

2.0 units, 4 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1, 2, , 5, and 6 with a grade of "C" or better. COREQUISITE: Registered Nursing 14.

Theoretical concepts of principles of medical-surgical nursing as they relate to infants and children. (A, CSU)

## 14 NURSING OF INFANTS AND CHILDREN CLINICAL

2 units, 12 lab hours, ( 9 weeks)
PREREQUISITE: Registered Nursing 1, 2, 5, and 6 with a grade of "C" or better. COREQUISITE: Registered Nursing 13.

Clinical application of medical-surgical nursing concepts, principles and related practices to infants and children. (A, CSU)

## 15 NURSING LEADERSHIP

1 unit, 2 lecture hours, (9 weeks)
PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better.

Managerial issues, responsibilities and techniques for the newregistered nurse graduate, including professional perspectives, legal and ethical issues, and organization communication. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to nursing. Learning objectives established specific to nursing. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 21 TRANSCULTURAL HEALTH CARE

1 unit, 2 lecture hours, ( 9 weeks)
PREREQUISITE: Registered Nursing 1 and 2 with a grade of " $C$ " or better.

Cultural and religious concepts as they relate to healthcare. (A, CSU)

50 FUNDAMENTALS OF PERIOPERATIVE NURSING
2 units, 8 lecture hours, ( 5 weeks), (Credit/No
Credit), (Repeats $=2$ )
PREREQUISITE: Registered Nursing 3 or completion of a medi-cal-surgical nursing component in a Registered Nursing program.

Concepts essential to perioperative nursing practice with emphasis on the intraoperative phase of the patient's surgical experience. (A, CSU)

## PARALEGAL (PLEGAL)

Courses required for paralegal degree/certificate are offered regularly. Some elective courses are scheduled less frequently than others.

## 1 INTRODUCTION TO PARALEGALISM

3 units, 3 lecture hours
PREREQUISITE: BA20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Overview of paralegal profession, including historical development, employment, ethics, job responsibilities, litigation process, legal analysis, and legal research and writing. (A, CSU)

## 2A LEGAL RESEARCH AND WRITING

3 units, 3 lecture hours, (Spring only)
PREREQUISITE: Paralegal 1
Development of research skills through use of primary and secondary authorities such as case reporters, statutory and administrative codes, wordbooks, legal encyclopedias, treatises and legal periodicals, and finding tools. Development of legal writing skills through preparation of various writing assignments such as case briefs, letters, transactional forms, and interoffice memos. (A, CSU)

## 2B LEGAL RESEARCH AND WRITING

3 units, 3 lecture hours, (Fall only)
PREREQUISITE: Paralegal 2A
Further development of legal research and writing skills using standard primary and secondary sources. Also, development of skills in using more sophisticated forms of legal research tools such as legislative history, computer assisted legal research, restatements, and looseleaf services. Further development of legal writing skills through preparation of various writing assignments such as a trial notebook, client opinion letter, research pathfinder, case briefs, and pleadings. (A, CSU)

## 3 FAMILY LAW

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Marriage, divorce, nonmarital cohabitation, invalid marriages, separation, annulment, client interviewing, commencing the proceed-
ings, orders pending trial, support, child custody and visitation, marital property, adoption and parentage. (A, CSU)

## 4 PROBATE

3 units, 3 lecture hours
PREREQUSITE: Paralegal 1.
Estates, trusts, wills, probate procedures, property (real and personal), sales, taxes, formal and informal probate administration. (A, CSU)

## 5 BUSINESS ORGANIZATIONS

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Corporations, partnerships, joint ventures, and sole proprietorships. Legal problems associated with the various forms of business organizations including formation, management, control, securities, capitalization, taxation, reorganization, and dissolution. (A, CSU)

## 6A LITIGATION

3 units, 3 lecture hours, (Fall only)
PREREQUISITE: Paralegal 2B.
Role of the paralegal in the litigation process. Court system and jurisdiction issues, types and forms of pleadings, calendaring pleading, and forms of discovery. (A, CSU)

## 6B LITIGATION

3 units, 3 lecture hours, (Spring only)
PREREQUISITE: Paralegal 6A.
Role of paralegal in the litigation process. Forms of discovery; calendaring discovery; law and motion; trial setting; arbitration; preparation for trial and trial procedures; judgments, post-trial motions and appeals; and provisional remedies. (A, CSU)

## 7 LAW OFFICE PRACTICES

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1 or BGO 57.
Principles of law office management and operation to include human relations, general office procedures, and office supervision. Preparation for working in law office environment. (A, CSU)

## 8 TORTS/CONTRACTS

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Overview of tort law and contract law doctrines. Basic tort/contract concepts and terminology including negligence, strict liability, intentional and constitutional torts, defenses and immunities, offer and acceptance, consideration, performance and discharge, contract drafting, and contract interpretation. (A, CSU)

## 9 REAL PROPERTY

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Introduction to basic concepts of real property lawincluding both ownership and use. Emphasis placed upon title, title insurance, landlord and tenant, land contracts, deeds, and security for loans. Preparation of real estate documents. (A, CSU)

## 10 CRIMINAL LAW AND PROCEDURE

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Introduction to substantive/procedural aspects of criminal lawincluding crimes against persons and property, defenses to crimes, motions to suppress evidence, jury and court trials, sentencing, and appeals. (A, CSU)

## 11 EVIDENCE

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Legal concepts and terminology associated with the law of evidence, including relevance, hearsay, presumptions, cross-examinations, impeachment, and privileges. (A, CSU)

## 12 BANKRUPTCY

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Introduction to bankruptcy law including bankruptcy proceedings, evaluating a client's options in regard to such proceedings, and learning the rights/responsibilities of debtors and creditors. (A, CSU)

## 13 DISCOVERY AND TRIAL PREPARATION

3 units, 3 lecture hours
PREREQUISITE: Paralegal 6A
The purposes of discovery, right to discovery, and "hands-on" experience with civil discovery procedures including client interviews, depositions and transcript summarization, interrogatories, requests for inspection, physical and mental examinations, requests for admission, subpoenas, expert witness disclosures, and the organization of discovery for retrieval. Essentials of trial preparation and assisting during the course of trial including courtroom etiquette, selecting and subpoenaing witnesses, preparing exhibits, and jury selection. (A, CSU)

## 14 LAW OFFICE COMPUTING

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Paralegal 1 or BT 40 or equivalent and working knowledge of WordPerfect (5.0, 5.1, 5.2, 6.0, or 6.1) or BT 7 and 8 or working knowledge of Word for Windows or BT 28 and 29.

Introduction to the use of various legal-specific computer soft-
ware programs (litigation support, forms creation, docketing, document management, etc.) commonly found in law offices. Hands-on training on use of selected programs. (A, CSU)

## 15 DEBT COLLECTION AND ENFORCEMENT OF JUDGEMENTS

3 units, 3 lecture hours
PREREQUSITE: Paralegal 1.
Emphasis on the procedures and forms required for levying on real and personal property pursuant to judgments entered. Specific topics include enforcement strategies, filing judicial liens, issuing writs of execution, levying on personal and real property, preparing wage garnishment, claiming exemptions, and issuing and obtaining orders. (A, CSU)

## 16 ENVIRONMENTAL LAW

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Introduction to basic concepts of environmental law including zoning; environmental controls on land use; control of water, air, and noise pollution; nuisances; building regulations; Subdivision Map Act; and California Environmental Quality Act. (A, CSU)

## 17 ADMINISTRATIVE LAW/WORKERS' COMPENSATION

3 units, 3 lecture hours
PREREQUSITE: Paralegal 1.
Introduction to basic concepts of administrative law and workers' compensation law. Emphasis placed on agency rulemaking, agency investigations, agency adjudications, judicial review, compensable injuries, temporary disability, permanent disability, and Worker's Compensation Appeals Board proceedings. (A, CSU)

## 156 LEGAL OFFICE ADMINISTRATION

3 units, 2 lecture hours, 1 lab hour, (See also BT 140), (Formerly Paralegal 56)

ADVISORY: BT 2 or ability to type 40 words per minute recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Legal vocabulary, ethics, and law office practices and procedures. Preparation of correspondence and client documents. (A)

## 157 LEGAL DOCUMENT PREPARATION

3 units, 2 lecture hours, 1 lab hour, (See also BT
141), (Formerly Paralegal 57)

ADVISORY: BT 2 or ability to type 40 words per minute recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Additional legal vocabulary, ethics, and legal procedures. Preparation of law blanks and court documents (pleadings). (A)

## PHILOSOPHY (PHIL)

## 1A THEORIES OF KNOWLEDGE AND REALITY

3 units, 3 lecture hours
PREREQUISITE: English 1A
An introduction to traditional and contemporary views on the nature of knowledge, truth, and thought; alternative views of God, the universe, and human nature. Develops skills in philosophical analysis and logical thinking. (CANPHL 2) (A, CSU-GE, UC, I)

## 1AH HONORS THEORIES OF KNOWLEDGE AND REALITY

3 units, 3 lecture hours, (Formerly Honors 1P)
PREREQUISITE: English 1A
An introduction to traditional and contemporary views on the nature of knowledge, truth, and thought; alternative views of God, the universe and human nature. Develops skills in philosophical analysis and logical thinking. Honors sections may also focus on an historical overview or a more in-depth study of a significant branch of philosophy e.g. philosophy of language or philosophy of mind. (A, CSU-GE, UC, I)

## 1B SOCIAL AND POLITICAL PHILOSOPHY

3 units, 3 lecture hours
PREREQUISITE: English 1Aor equivalent. Philosophy 1A is not a prerequisite to 1 B .

An introduction to social and political philosophies, ancient and modern; inquiry into views of human nature, the nature and varieties of institutions, and the personal and social implications of the human experience. (A, CSU-GE, UC, I)

## 1C ETHICS

3 units, 3 lecture hours
PREREQUISITE: English 1Aor equivalent. Neither Philosophy 1A nor Philosophy $1 B$ is a prerequisite for this course.

Reading and critical analysis of primary texts on moral theory. Examinations of ethical concepts such as good, evil, moral obligation. Conditions necessary to ethical decision-making-conscience, moral rules, justice, and free will. (CAN PHL 4) (A, CSU-GE, UC, I)

## 1D WORLD RELIGIONS

3 units, 3 lecture hours, (Formerly Philosophy 10)
PREREQUISITE: English 1A or equivalent.
Basic beliefs and practices of Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam. (A, CSU-GE, UC, I)

## 4 CRITICAL REASONING

3 units, 3 lecture hours
ADVISORY: English 1A recommended.

Principles and methods of good reasoning, including identification of arguments, developing and assessing basic deductive and inductive reasoning, common fallacies, and application of each element to the student's major area of study, such as Liberal Studies. (A, CSU)

## 6 INTRODUCTION TO LOGIC

3 units, 3 lecture hours
ADVISORY: Eligibility for English 1A recommended.
Deductive systems of logic, including syllogistic logic as well as propositional and predicate symbolic logic. (CANPHIL6) (A, CSU-GE, UC)

## PHOTOGRAPHY (Рното)

## 5 INTRODUCTION TO PHOTOGRAPHY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Survey of photographic practices and methods. Emphasis on creative and technical use of camera controls and accessories, lighting, and the visual language. Class demonstrations, field trips, and classroom discussion of photographs made by students. (A, CSU-GE, UC)

## 10 BASIC BLACK AND WHITE PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours
COREQUISITE: Photo 5 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Theories and practices of 35 mm photography: technical and creative use of manual camera controls and accessories, film development, printing, and print presentation techniques. Projects emphasize photographic problem solving and developing personal vision. Classroom discussion of photographs made by students. (CAN ART 18) (A, CSUGE, UC)

## 15 INTERMEDIATE BLACK AND WHITE PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Photography 10 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The nature and character of photography; its use by man for communication and expression. Visual literacy and photography as a universal language. How concept, design, and execution of the photographic image are utilized in our culture. The use of small format cameras, darkroom processes, and field trips as required. (A, CSU-GE, UC)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to photography. Learning objectives established specific to photography. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 ADVANCED BLACK AND WHITE PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours, (Spring)
PREREQUISITE: Photography 10 or equivalent.
Advanced black and white techniques with emphasis on the zone system, darkroom experimentation, lighting, design, and visual literacy through related 35 mm and 4 x 5 view camera projects, readings, and class critiques. (A, CSU-GE)

## 22 DIGITAL PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL67 and 68 recommended. Concurrent enrollment in INDED 50 recommended.

The survey and use of electronic still photography: image capture, processing, display, storage, transmission, and output and legal/ ethical issues. Scanning film and prints and using Macintosh computers with image enhancement software to produce a portfolio of digital photographs. (A, CSU)

## 23 DIGITAL DARKROOM

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
PREREQUISITE: Photo 22 or equivalent.
Intermediate and advanced techniques for computer-aided still photography, image capture, processing, and output technologies. Use of image enhancement software and Macintosh computers to complete real world assignments and produce a portfolio of digital photography. (A, CSU)

## 25 PORTRAITURE

3 units, 2 lecture hours, 3 lab hours, (Formerly Photo 23)

PREREQUISITE: Photography 10 or equivalent.
Studio and environmental commercial portraiture. Emphasis on posing techniques, lighting, composition, and the psychology of obtaining desired expressions. Use of small and medium format cameras with black and white and color film. (A, CSU)

30 PHOTOJOURNALISM
3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Photography 10 or equivalent.
Photography applied to news media, public relations, and business. The use of small format cameras and accessories. Emphasis on the communication of ideas by utilizing the various elements of the visual language. (A, CSU)

## 35 COMMERCIAL AND INDUSTRIAL PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours, (Formerly Photo 24)

PREREQUISITE: Photography 20.
The psychological, technical, and creative methods of dealing with subject matter to produce photographs that sell an idea, product, or service. Special emphasis on professional studio and environmental lighting techniques. Use of $4 \times 5$ and $8 \times 10$ camera controls. Black and white and color materials. (A, CSU)

## 40 BASIC COLOR PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3),
(Formerly Photo 30)
PREREQUSITE: Photography 10 or equivalent.
The visual and technical approaches to color photography: light qualities, color composition, exposure control, film characteristics, color slide processing and printing from slides. Class demonstrations and discussion of color slides and prints produced by students. (A, CSU)

## 45 INDEPENDENT PHOTO STUDY

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
PREREQUISITE: Photography 15 or 20 or 22 or 25 or 30 or 35 or 40 or equivalent.

Individual photographic projects designed to allow the student to expand on a specific area of previous study. The production of a preemployment portfolio with field trips to professional studios, labs, television stations, newspapers, and galleries. (A, CSU)

## PHYSICAL EDUCATION (PE)

## GENERAL ACTIVITY COURSES

## 3 ARCHERY

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT
14)

Techniques of shooting, correct use of equipment, and safety procedures. Events include target and field archery, tournament rounds, and competitive shooting. (A, CSU, UC)

## 4 BADMINTON

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 1)

Strokes, rules, etiquette, and strategy. Singles and doubles game experience. (A, CSU, UC)

## 5 BASKETBALL

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT
5A)
Basic skills, rules, strategy, offense and defense. Tournaments according to skill level of students. (A, CSU, UC)

## 6 FITNESS AND HEALTH

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 15A)
Activities offered to meet individual needs in posture, strength, flexibility, endurance, and relaxation. Universal weight machines not used. (A, CSU, UC)

## 7 GOLF

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT
10)

Grip, stance, and swing fundamentals. Instruction on irons, woods, putting, and sand play. Swing evaluation for each student. Course play and conduct etiquette. Golf range practice included; golf course assignments; range \& golf course fee is student's responsibility. (A, CSU, UC)

## 8 MARTIAL ARTS/SELF DEFENSE

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT
29)

PREREQUISITE: None.
An introduction to Martial Arts for sport and self-defense: basic blocks, stances, and strikes. Filipino Stick Fighting techniques. Physical conditioning and mental discipline for men and women. (A, CSU, UC)

## 9 PHYSICAL FITNESS

1 unit, 3 lab hours, (Repeats = 3), (Formerly PE ACT 17A)
Designed to test individuals, assign an exercise program and retest to note progress. Emphasis on individual training. Use of weightlifting machines. (A, CSU, UC)

## 10 RACQUETBALL

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 12A)
Basic strokes, rules, and strategy. Singles and doubles tournaments according to skill level of student. (A, CSU, UC)

## 11 SEASONAL SPORTS

1 unit, 2 lab hours, (Repeats $=3$ in each activity), (Formerly PE ACT 5)
Recreational skills of baseball, fencing, football, soccer, softball, track, and wrestling. (A, CSU, UC)

## 12 RECREATIONAL SWIMMING

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 16A)
Techniques of swimming and conditioning for beginning and advanced swimmers. Stroke technique drills and conditioning workouts. (A, CSU, UC)

13 TENNIS
1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 7)

Strokes, rules, etiquette and game strategy for singles and doubles. (A, CSU, UC)

## 14 VOLLEYBALL

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 5G)
Basic skills, rules, strategy, offense and defense. Tournaments according to skill level of students. (A, CSU, UC)

15A WEIGHT TRAINING (WOMEN)
1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 11B)
Total body developed by exercising against weighted resistance, and doing isotonic and circuit exercises. Use of modern weight apparatus and equipment. Safety methods of lifting and the use of equipment. Special emphasis on body building needs of women. (A, CSU, UC)

15B WEIGHT TRAINING (MEN)
1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 11A)
Total body development by exercising against weighted resistance, and doing isotonic and circuit exercises. Use of modern weight apparatus and equipment. Safety methods of lifting and the use of equipment. Special emphasis on body building needs of men. (A, CSU, UC)

15C WEIGHT TRAINING (COED)
1-2 units: 2 units, 4 lab hours; 1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 11C)
Total body development by exercising against weighted resistance; isotonic and circuit exercises. Class is structured to satisfy the body building needs of both men and women as they participate in the same environment. Use of modern weight apparatus and equipment. Safety methods of lifting and the use of equipment. (A, CSU, UC)

## 17 HATHA YOGA

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 28)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Fundamental exercises for flexibility, strength, relaxation, and improvement of concentration drawn largely from the Hatha Yoga tradition. (A, CSU, UC)

## 50 ADAPTED FITNESS AND FLEXIBILITY

1 unit, 2 lab hours, (Repeats $=3$ )
Designed for students with disabilities. Maintenance and/or development of basic physical/mental skills, knowledge, and attitude for satisfactory participation in lifetime fitness and flexibility activities. Measured cardiovascular fitness, stretching, and homework are stressed. (A, CSU, UC)

## 51 ADAPTED AQUATICS

1 unit, 2 lab hours, (Repeats = 3)
Designed for students with disabilities. Maintenance and/or development of basic physical/mental skills, knowledge, and attitude for satisfactory participation in aquatics (swimming, gait, fitness). Measured skill performance and cardiovascular fitness are stressed. (A, CSU, UC)

## 52 ADAPTED RECREATIONAL SPORTS

1 unit, 2 lab hours, (Repeats = 3)
Designed for students with disabilities. Three sports per semester, including walking, frisbee, softball, and others as appropriate. Basic skills, cardiovascular measurement, strokes, throws, catches, rules, strategies, and appropriate games and scoring. Homework as appropriate. (A, CSU, UC)

## 53 ADAPTED STRENGTH TRAINING

1 unit, 2 lab hours, (Repeats $=3$ )
Designed for students with disabilities. Maintenance and/or development of body strength and flexibility. Fundamental/advanced strength, flexibility, and cardiovascular measurement techniques. (A, CSU, UC)

## 54 ADAPTED WALKING AND BASIC CONDITIONING

1 unit, 2 lab hours, (Repeats = 3)
Designed for students with disabilities. Basic walking skills, cardiovascular fitness measurement, cycling, rowing, stair climbing, wheeling and flexibility. (A, CSU, UC)

## 55 ADAPTED FLEXIBILITY AND STRENGTH

1 unit, 2 lab hours, (Repeats = 3)
Designed for students with disabilities. Maintenance and/or development of flexibility, strength, and fitness using progressive resistance, stretching, and cardiovascular fitness activities. (A, CSU, UC)

## PREPROFESSIONAL COURSES

20 CARE AND PREVENTION OF ATHLETIC INJURIES
3 units, 3 lecture hours, 2 lab hours, (Formerly PE PRE 32)
PREREQUISITE: Intermediate swimming test: freestyle, elementary backstroke, breaststroke, and sidestroke. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. (A background in science is preferred).

Taping, treating, prevention, and evaluating athletic injuries. Emergency first aid. (CAN KINE/PE 4) (A, CSU, UC)

## 21 FITNESS CONCEPTS

2 units, 2 lecture hours, (Formerly PE PRE 30)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic exercise physiology to develop personalized exercise and weight control programs. (A, CSU, UC)

## 22 INTRODUCTION TO PHYSICAL EDUCATION

3 units, 3 lecture hours, (Formerly PE PRE 35)
Nature and scope of physical education and its sub-disciplines. Historical background, philosophy, curriculum, current problems and issues, and career options. (CAN KINE/PE 2) (A, CSU, UC)

## 23 LIFEGUARD TRAINING

3 units, 2 lecture hours, 2 lab hours, (Formerly PE
PRE 31A)
PREREQUISITE: Intermediate swimming test: freestyle, elementary backstroke, breaststroke, and sidestroke. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Lifeguarding and water safety techniques. Red Cross Certification available. (A, CSU, UC)

## 24 SPORTS OFFICIATING

2 units, 2 lecture hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Understanding and interpreting the rules and regulations of officiating one or more of the following activities: baseball, basketball, football, soccer, softball, track, volleyball, and wrestling. (A, CSU, UC)

## 25 WATER SAFETY INSTRUCTOR

3 units, 2 lecture hours, 2 lab hours, (Formerly PE
PRE 31B)
PREREQUISITE: Intermediate swimming test: freestyle, elementary backstroke, breaststroke, and sidestroke. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Teaching methods: all levels of swimming and diving. (CANKINE/ PE 10) (A, CSU, UC)

## INTERCOLLEGIATE ACTIVITY COURSES

Medical clearanceresulting from a physical examination by the college's team physician is required prior to a student's first enrollmentin any intercollegiate activity course.

## 29A THEORY OF BADMINTON

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of badminton. (A, CSU)

## 29B COMPETITIVE BADMINTON

2 units, 10 lab hours, (Repeats = 2)
Designed primarily for people possessing the desire, ability and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU)

## 29C OFF-SEASONING CONDITIONING FOR BADMINTON

1 unit, 3 lab hours, (Repeats = 2)
An activity class for badminton players. (A, CSU)

## 30A THEORY OF BASEBALL

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2),
(Formerly PE PRE 33B)
Techniques and biomechanics of baseball. (A, CSU, UC)
30B COMPETITIVE BASEBALL
2 units, 10 lab hours, (Spring), (Repeats = 2), (Formerly PE INT 41)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

30C OFF-SEASON CONDITIONING FOR BASEBALL
1 unit, 3 lab hours, (Repeats $=2$ )
An activity class for baseball players. (A, CSU, UC)

31A THEORY OF BASKETBALL
1 unit, 1 lecture hour, 1 lab hour, (Repeats = 3), (Formerly PE PRE 33A)
Techniques and biomechanics of basketball. (A, CSU, UC)

## 31B COMPETITIVE BASKETBALL

2 units, 10 lab hours, (Fall and Spring), (Repeats =
3), (Formerly PE INT 40)

Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiatelevel. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

31C OFF-SEASON CONDITIONING FOR BASKETBALL
1 unit, 3 lab hours, (Repeats = 2)
An activity class for basketball players. (A, CSU, UC)

## 32A THEORY OF CROSS COUNTRY

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques, strategies and biomechanics of cross country. (A, CSU, UC)

## 32B COMPETITIVE CROSS COUNTRY

2 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly
PE INT 48)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

32C OFF-SEASON CONDITIONING FOR CROSS COUNTRY
1 unit, 3 lab hours, (Repeats = 2)
An activity class for cross country runners. (A, CSU, UC)

## 33A THEORY OF FOOTBALL

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 3),
(Formerly PE PRE 33C)
Techniques and biomechanics of football. (A, CSU, UC)
33B COMPETITIVE FOOTBALL
2 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly PE INT 42)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

33C OFF-SEASON CONDITIONING FOR FOOTBALL
1 unit, 3 lab hours, (Repeats = 2)
An activity class for football players. (A, CSU, UC)

## 34A THEORY OF GOLF

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of golf. (A, CSU, UC)

## 34B COMPETITIVE GOLF

2 units, 10 lab hours, (Repeats $=2$ ), (Formerly PE INT 46)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

34C OFF-SEASON CONDITIONING FOR GOLF
1 unit, 3 lab hours, (Repeats = 2)
An activity class for golfers. (A, CSU, UC)

## 35B PEP AND CHEER

2 units, 6 lab hours, (Repeats $=3$ ), (Formerly PE PRE 38)

Designed primarily for people possessing the desire, ability, and skills necessary to participate in cheer and pep on the college level. Prospective participants should confer with the instructor before enrollment. (A, CSU)

## 36A THEORY OF SOCCER

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of soccer. (A, CSU, UC)

## 36B COMPETITIVE SOCCER

2 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly PE INT 39)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

36C OFF-SEASON CONDITIONING FOR SOCCER
1 unit, 3 lab hours, (Repeats = 2)
An activity class for soccer players. (A, CSU, UC)

## 37A THEORY OF SOFTBALL

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of softball. (A, CSU, UC)

37B COMPETITIVE SOFTBALL
2 units, 10 lab hours, (Spring), (Repeats = 2),
(Formerly PE INT 36)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiatelevel. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

37C OFF-SEASON CONDITIONING FOR SOFTBALL
1 unit, 3 lab hours, (Repeats = 2)
An activity class for softball players. (A, CSU, UC)

## 38A THEORY OF TENNIS

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of tennis. (A, CSU, UC)

## 38B COMPETITIVE TENNIS

2 units, 10 lab hours, (Spring), (Repeats = 2),
(Formerly PE INT 44)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

38C OFF-SEASON CONDITIONING FOR TENNIS
1 unit, 3 lab hours, (Repeats = 2)
An activity class for tennis players. (A, CSU, UC)

## 39A THEORY OF TRACK AND FIELD

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2),
(Formerly PE PRE 33D)
Techniques and biomechanics of track and field. (A, CSU, UC)

## 39B COMPETITIVE TRACK AND FIELD

2 units, 10 lab hours, (Spring), (Repeats = 2),
(Formerly PE INT 43)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

39C OFF-SEASON CONDITIONING FOR TRACK AND FIELD
1 unit, 3 lab hours, (Repeats $=2$ )
An activity class for track and field team members. (A, CSU, UC)

## 40A THEORY OF VOLLEYBALL

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of volleyball. (A, CSU, UC)

40B COMPETITIVE VOLLEYBALL
2 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly PE INT 37)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

40C OFF-SEASON CONDITIONING FOR VOLLEYBALL
1 unit, 3 lab hours, (Repeats = 2)
An activity class for volleyball players. (A, CSU, UC)

## 41A THEORY OF WRESTLING

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of wrestling. (A, CSU, UC)

## 41B COMPETITIVE WRESTLING

2 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly
PE INT 45)
Designed primarily for people possessing the desire, ability, and skills necessary to compete on the intercollegiate level. Prospective participants should confer with the head coach of the sport before enrollment. A minimum of 10 hours participation per week during the season of the sport normally is required. (A, CSU, UC)

41C OFF-SEASON CONDITIONING FOR WRESTLING
1 unit, 3 lab hours, (Repeats = 2)
An activity class for wrestlers. (A, CSU, UC)

## PHYSICAL SCIENCE (PHYSC)

## 7 ENVIRONMENTAL SCIENCE

3 units, 3 lecture hours, (Formerly Environmental Studies 7)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 recommended.

The application of scientific principles to the understanding of environmental problems and issues. Seeking solutions to contemporary environmental problems; historical, economical, political and social implications; relationships to scientific principles; ecosystems, urban affairs, housing, land planning, transportation, air and water pollution, water development, food production, wildlife, pest control, and population studies. (A, CSU, UC)

## 11 INTRODUCTORY PHYSICAL SCIENCE

3 units, 3 lecture hours
ADVISORY: Math 3 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Emphasis on a survey of physics including mechanics, thermodynamics, electricity and magnetism, optics, and modern physics. Some basic concepts of astronomy and chemistry. Designed primarily for nonscience majors. (A, CSU-GE, UC, I)

## PHYSICS (PHYS)

## 2A GENERAL PHYSICS 1

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Math 4A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Mechanics, thermal physics, oscillations, and waves. Designed primarily for life science and related majors. (CAN PHYS 2) (A, CSUGE, UC, I)

## 2B GENERAL PHYSICS 2

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Physics 2A.
Electricity and magnetism, optics, and introduction to modern physics. Designed primarily for life science and related majors. (CAN PHYS 4) (A, CSU-GE, UC, I)

## 4 A PHYSICS FOR SCIENTISTS AND ENGINEERS

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Math 5A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Mechanics. Designed primarily for physics, engineering, and re lated majors. (CANPHYS 8) (A, CSU-GE, UC, I)

## 4B PHYSICS FOR SCIENTISTS AND ENGINEERS

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Physics 4A.
Electricity and magnetism. Designed primarily for physics, engineering, and related majors. (CAN PHYS 12) (A, CSU, UC, I)

## 4C PHYSICS FOR SCIENTISTS AND ENGINEERS

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Physics 4A. Physics 4B is not a prerequisite.
Thermal physics, waves, optics, introduction to modern physics. Designed primarily for physics, engineering, and related majors. (CAN PHYS 14) (A, CSU, UC, I)

## POLITICAL SCIENCE (POLSCI)

## 1 MODERN POLITICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Political concepts and processes through a survey of the literature of the subfields of political science: political philosophy, international relations, constitutional law, American politics, public administration, and behavioral studies methodology. (A, CSU, UC)

## 2 AMERICAN GOVERNMENT

3 units, 3 lecture hours
ADVISORY: Eligibility for English 1A recommended.
Analysis of political and judicial institutions and processes, political ideology, political economy, civil rights, California state and local government. Satisfies the U.S. Constitution requirements and the national state and local government requirements for transfer students. (CAN GOVT 2) (A, CSU, UC)

## 5 COMPARATIVE GOVERNMENT

3 units, 3 lecture hours
ADVISORY: Political Science 2 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to comparative governmental, political, economic and ideological arrangements in selected countries or contexts. (A, CSU-GE, UC, I)

## 10 AMERICAN INSTITUTIONS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Current problems of American and California government. Federal, state and local institutions. Does not satisfy the U.S. history constitution transfer requirements for a BA degree under Section 40404. Satisfies Fresno City College graduation requirement. (A, CSU)

## 13 LEGAL AND JUDICIAL REASONING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 1A recommended.
Statutory, common law and constitutional interpretation; examination of judicial and legal reasoning and the evolution of fundamental constitutional rights and principles. (A, CSU-GE, UC)

## 20 LAW AND LEGAL INSTITUTIONS

3 units, 3 lecture hours
ADVISORY: Political Science 2 or 10 and eligibility for English 1A recommended.

Law as a social process. Historical origins. Western, nonwestern, and transnational contexts. Sources of law and legal reasoning. The judicial system, judicial remedies, civil procedure, criminal procedure, administrative procedure, contracts, real property, torts, alternative dispute resolution, and ethics and the legal system. (A, CSU-GE, UC)

## 24 INTERNATIONAL RELATIONS

3 units, 3 lecture hours, (See also Political Science 174)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

How nations manage their relations with other nations; their perceptions of themselves and of each other; their use of power to achieve their objectives. Issues facing the U.S. and the world community. (A, CSU, UC)

## 174 INTERNATIONAL RELATIONS

3 units, 3 lecture hours, (See also Political Science
24), (Formerly Political Science 74)

PREREQUISITE: None.
How nations manage their relations with other nations; their perceptions of themselves and of each other; their use of power to achieve their objectives. Issues facing the U.S. and the world community. (A)

## PRINTING TECHNOLOGY (PT)

SEE GRAPHICS COMMUNICATIONS

## PSYCHOLOGY (PSY)

## 2 GENERAL PSYCHOLOGY

3 units, 3 lecture hours, (Formerly Psychology 7)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Scientific study of behavior and mental processes. Topics include history, methodology biopsychology, lifespan development, sensation and perception, consciousness and altered states, learning and memory, thought and language, intelligence, motivation and emotion, personality, psychopathology and therapy, stress and health, and social and cultural influences. (A, CSU-GE, UC, I)

## 2H HONORS GENERAL PSYCHOLOGY

3 units, 3 lecture hours, (Formerly Honors 7P and Psychology 7H)
ADVSORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in college catalog.

Scientific study of behavior and mental processes. Topics include history, methodology, biopsychology, lifespan development, sensation and perception, consciousness and altered states, learning and memory, thought and language, intelligence, motivation and emotion, personality, psychopathology and therapy, stress and health, and social and cultural influences. The Honors section of this course places a greater emphasis on understanding the human being as an integrated physiological, social, and psychological organism and further enriches that perspective with data and theories from related disciplines. (A, CSUGE, UC, I)

## 5 SOCIAL PSYCHOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Systematic analysis of the social determinants of behavior and mental processes with emphasis on methodology, theory, perception of self and others, attitudes, roles, conformity, compliance, attraction, aggression, altruism, behavior in groups, and behavior in built environments. (A, CSU, UC)

12 CHILD ABUSE
2 units, 2 lecture hours, (See also Child Development 12)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Issues related to the abused, battered and neglected children. Characteristics of abusers. Identification, prevention and treatment of abused children and of abusers. (A, CSU)

## 13 CHILD SEXUAL MOLESTATION

2 units, 2 lecture hours, (See also Child Development 13)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Issues related to child sexual molestation and pornography. Characteristics of intra-familial sexual abusers, pedophiles and adolescent molesters. Reporting laws and the legal process. Identification, prevention and treatment of sexually abused children and of molesters. ( $\mathrm{A}, \mathrm{CSU}$ )

14 YOUTH SUICIDE
1 unit, 1 lecture hour, (See also Child Development 14)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An in-depth look at the causes of and increase in youth suicide. Clues to suicidal fantasy and motivation. Facts and myths pertaining
to suicide. Effect of suicide on the family and community. Identification, prevention and intervention of youth suicide. (A, CSU)

## 15 PSYCHOLOGY OF RELIGION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Psychological consequences of religion on thinking, emotions, moral and social behavior. Topics include the science-versus-religion problem, a comparison of selected Eastern and Western approaches to human identity and social relationships, and an examination of the impact of religion on experience, attitudes, behavior, and mental health. (A, CSU, UC)

## 16 ABNORMAL PSYCHOLOGY

3 units, 3 lecture hours
ADVISORY: Psychology 2 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Psychological, social, and biological bases of abnormal behavior. Definitions of abnormality; current models of causality, classification, therapy, and intervention; critical analysis of research techniques and findings. (A, CSU, UC)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to psychology. Learning objectives established specific to psychology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 25 HUMAN SEXUALITY

3 units, 3 lecture hours
ADVISORY: Psychology 2 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and recommended.

Sexual behaviors and values in contemporary society from both a psychobiological and sociological perspective. Anatomy and physiology of sex, sex within relationships, alternative lifestyles, fertility management, contraception, sexual dysfunction, social roles and attitudes. Destructive sexual behavior: rape and incest. Presented in an explicit and scientific manner. (A, CSU, UC)

## 33 PERSONAL AND SOCIAL ADJUSTMENT

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The psychology of effective and ineffective coping patterns. Topics include personality, lifespan development, psychological factors of physical health and illness, stress, gender roles, interpersonal relationships, work and leisure, psychological disorders, and therapy. These topics will be explored with an emphasis on both theory and practical application in everyday life. (A, CSU-GE, UC)

## 36 INTRODUCTION TO PSYCHOPHYSIOLOGY

3 units, 3 lecture hours
ADVISORY: Psychology 2 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Biological mechanisms central to fundamental concepts and issues of psychology. Topics include basic neuroanatomy and neurophysiology, research methods in biological psychology; and the physiological mechanisms underlying sensation, perception, consciousness, motivation, emotion, learning, memory and psychological disorders. (CAN PSY 10) (A, CSU, UC)

## 38 LIFESPAN DEVELOPMENT

3 units, 3 lecture hours, (See also Child Development 38)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic theories, research concepts and principles of physical, cognitive and psychosocial development at each major stage of life from conception to old age. All major topics of human development (e.g., human behavior, sexuality, nutrition, health, stress, key relationships of mankind to the social and physical environment, and implication of death and dying) presented in an integrated manner. (A, CSU-GE, UC, I)

## 39 CHILD DEVELOPMENT

3 units, 3 lecture hours, 1 lab hour, (See also Child
Development 39)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Verification of freedom from tuberculosis, and proof of immunization against measles, mumps and rubella, twice, if born after 1957 recommended.

Basic theories, research, concepts, and principles of physical, cognitive, and psychosocial development at each major stage of life from conception to adolescence. (A, CSU-GE, UC, I)

## 42 STATISTICS FOR THE BEHAVIORAL SCIENCES

4 units, 4 lecture hours, (See also Mathematics 42)
PREREQUISITE: Math 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Descriptive statistics, sampling, hypothesis testing, estimation, selected non-parametric techniques, ANOVA, and regression, with applications from psychology, biology, and social sciences. (CAN PSY 6) (A, CSU-GE, UC, I)

## 163 PSYCHOLOGY FOR EFFECTIVE LIVING

3 units, 3 lecture hours, (Formerly Psychology 63)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Examines the psychological, physiological, and social aspects of effective living. Adjustment, development, stress and coping, anger and depression, psychopathology and psychotherapy, physical self-care, substance use and abuse, sexuality, friendship and marriage, parenting and family life, work and play, aging and dying, and setting and accomplishing goals. Designed primarily for nontransfer vocational students. (A)

## PURCHASING (PUR)

## 10 PURCHASING PRINCIPLES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Methods of procurement. Organization and operation of purchasing department. Sources, services, quantity, quality control, and legal aspects of purchasing. (Scheduled infrequently) (A, CSU)

## 11 PURCHASING PRACTICE

3 units, 3 lecture hours
PREREQUISITE: Purchasing 10. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic polices and procedures: Proposal evaluation and cost/price analysis, contract preparation, personnel practices, and governmental and institutional operations. (Scheduled infrequently) (A, CSU)

## RADIOLOGIC TECHNOLOGY (RAD)

## 1A FUNDAMENTALS OF RADIOLOGY TECHNOLOGY

6 units, 6 lecture hours
PREREQUISITE: Admission to the Radiologic Technology Program; Applied Technology 11; Biology 24 or Biology 20 and 22. COREQUISITE: Radiologic Technology 1B and 1C. ADVISORY: Eligibil-
ity for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Radiography and its relation to radiology and the hospital; X-ray production, darkroom chemistry, radiographic quality, medical ethics, and use of X-ray equipment. (A, CSU)

## $1 B$ BASIC RADIOGRAPHIC POSITIONING LABORATORY

1 unit, 3 lab hours
PREREQUISITE: Admission to the Radiologic Technology Program; Applied Technology 11; Biology 24 or Biology 20 and 22. COREQUISITE: Radiologic Technology 1A and 1C. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Demonstration and practice in positioning of the extremities, chest and abdomen. (A, CSU)

1C CLINICAL ORIENTATION LABORATORY
2 units, 6 lab hours
PREREQUISITE: Admission to the Radiologic Technology Program; Applied Technology 11; Biology 24 or Biology 20 and 22.

COREQUISITE: Radiologic Technology 1Aand 1B. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Practice of the applicable rules and regulations of the clinical facility. Assist with basic radiographic procedures. (A, CSU)

## 2A RADIATION BIOLOGY

6 units, 6 lecture hours
PREREQUISITE: Radiologic Technology 1A, 1B and 1C. COREQUISITE: Radiologic Technology 2B, 2C, and 2D.

Biological effects of radiation, protection standards, personnel monitoring, and concepts of radiation units. (A, CSU)

## 2B ADVANCED RADIOGRAPHIC POSITIONING LABORATORY

1 unit, 3 lab hours
PREREQUISITE: Radiologic Technology 1A, 1B and 1C. COREQUISITE: Radiologic Technology 2A, 2C, and 2D.

Demonstration and practice in positioning of the skull, spine, bony thorax and pediatric radiography. (A, CSU)

## 2C CLINICAL OBSERVATION LABORATORY

2 units, 6 lab hours
PREREQUISITE: Radiologic Technology 1A and 1B and 1C. COREQUISITE: Radiologic Technology 2A, 2B, and 2D.

Film production proficiency, basic radiographic procedures, filing and office procedures, and patient transporting. (A, CSU)

2D QUALITY ASSURANCE IN RADIOLOGIC TECHNOLOGY
1 unit, 3 lab hours
PREREQUISITE: Radiologic Technology 1A and 1B and 1C. COREQUISITE: Radiologic Technology 2A, 2B, and 2C.

An introduction to the evaluation of radiographic systems to assure consistency in the production of quality images. (A, CSU)

3A NURSING PROCEDURES IN RADIOLOGIC TECHNOLOGY
2 units, 3 lecture hours, (12 weeks), (Summer only)
PREREQUSITE: Radiologic Technology 2A, 2B, 2C, and 2D.
COREQUISITE: Radiologic Technology 3B.
Procedures and methods pertaining to X-ray, emergency patients, and surgical procedures. (A, CSU)

3B BASIC CLINICAL RADIOLOGIC TECHNOLOGY
7 units, 32 lab hours, ( 12 weeks), (Summer only)
PREREQUISITE: Radiologic Technology 2A, 2B, 2C, and 2D.
COREQUISITE: Radiologic Technology 3A.
Basic radiographic positioning and fluoroscopy. Supervised clinical experience in local hospital radiology departments. (A, CSU)

## 4A PATHOLOGY IN RADIOLOGIC TECHNOLOGY

2 units, 2 lecture hours
PREREQUISITE: Radiologic Technology 3A and 3B.
COREQUISITE: Radiologic Technology 4B.
Abnormal conditions of patients that preclude routine radiography; pathological conditions that need recognition and special treatment by radiologic technologists. (A, CSU)

## 4B ADVANCED CLINICAL RADIOLOGIC TECHNOLOGY

11 units, 33 lab hours
PREREQUISITE: Radiologic Technology 3A and 3B.
COREQUISITE: Radiologic Technology 4A.
Advanced radiographic exposure and positioning; procedures in medical-surgical conditions. (A, CSU)

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4C ADVANCED RADIOGRAPHIC POSITIONING
    LABORATORY-CRANIUM
    1 unit, 3 lab hours
    PREREQUISITE: Radiologic Technology 1B and 2B.
    COREQUSITE: Radiologic Technology 4A and 4B.
    Demonstration and practice in positioning of the skull, facial
bones, paranasal sinuses and temporal bones for radiographic exami-
nation. (A, CSU)
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## 5A SPECIAL PROCEDURES IN RADIOLOGIC TECHNOLOGY

2 units, 2 lecture hours
PREREQUISITE: Radiologic Technology 4A and 4B.
COREQUISITE: Radiologic Technology 5B.
Special procedures for diagnostic purposes and equipment maintenance. (A, CSU)

## 5B SPECIALIZED CLINICAL RADIOLOGIC TECHNOLOGY

11 units, 33 lab hours
PREREQUISITE: Radiologic Technology 4A and 4B.
COREQUSITE: Radiologic Technology 5A.
Special procedures for diagnostic purposes; exposure to new imaging modalities. (A, CSU)

5C FLUOROSCOPY
2 units, 2 lecture hours, 1 lab hour.
PREREQUISITE: Radiologic Technology 2A, 4B.
COREQUISITE: Radiologic Technology 5A, 5B.
Fluoroscopy techniques including positioning the patient, selecting exposure factors and positioning fluoroscopy equipment. (A, CSU)

6 CONCENTRATED CLINICAL RADIOLOGIC TECHNOLOGY
6 units, 40 lab hours, (8 weeks), (Summer)
PREREQUISITE: Radiologic Technology 5A and 5B.
Concentrated clinical experience to develop proficiency in all aspects of diagnostic radiography. (A, CSU)

## REAL ESTATE (RE)

RE 40 meets State requirements to take the Real Estate Sales Test but it is not intended to be a license preparation course. Completion of RE 41, 42, 43, 44, either ACCTG or RE 56, and one course from RE 40, $57,60,63$, or BA 18 satisfies the State requirement for brokers under the Real Estate Licensure law. The following courses do not meet continuing education requirements for real estate license renewal:

## 40 REAL ESTATE PRINCIPLES

3 units, 3 lecture hours, (Formerly Real Estate 50)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

California real estate history, real property descriptions, public and private restriction terminology, agency and contracts, forms, licensure, and careers in real estate. (A, CSU)

## 41 REAL ESTATE PRACTICE

3 units, 3 lecture hours, (Formerly Real Estate 51)
PREREQUISITE: Real Estate 40 or hold a license as a real estate salesperson or broker in California.

Day-to-day operations affecting brokers and sales persons, listings, advertising and marketing techniques. (Scheduled infrequently) (A, CSU)

## 42 LEGAL ASPECTS OF REAL ESTATE

3 units, 3 lecture hours, (Formerly Real Estate 52)
PREREQUSSITE: Real Estate 40, or equivalent experience, or hold a real estate salesperson license.

Statute and case law with emphasis on laws affecting licensees includes duties, responsibilities and regulation of licensees in the areas of agency, contracts, property financing, ownership, use and transfer of real property. (Scheduled infrequently) (A, CSU)

## 43 REAL ESTATE APPRAISAL I

3 units, 3 lecture hours, (Formerly Real Estate 53)
PREREQUISITE: Real Estate 40, or equivalent experience, or hold a real estate salesperson license. ADVISORY: Eligibility for Math 101 recommended.

Residential and commercial property evaluation. Preparation of appraisal reports. (Scheduled infrequently) (A, CSU)

## 54 REAL ESTATE FINANCE

3 units, 3 lecture hours
PREREQUSSITE: Real Estate 40, or equivalent experience, or hold a real estate salesperson license. ADVISORY: Eligibility for Math 101 recommended.

Money markets, interest, and lending policies for residential, multi-family, commercial, and special purpose properties. (Scheduled infrequently) (A, CSU)

## 55 ELEMENTS OF RESIDENTIAL DESIGN AND STRUCTURE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Site selection and development, construction, materials, cost, and building code requirements. (Scheduled infrequently) (A, CSU)

## 56 ECONOMICS OF REAL ESTATE

3 units, 3 lecture hours
PREREQUISITE: Real Estate 40, or equivalent experience, or hold a real estate salesperson license.

Urban growth, redevelopment, land use planning and utilization, shopping centers, and subdivisions. (Scheduled infrequently) (A, CSU)

57 REAL ESTATE APPRAISAL II
3 units, 3 lecture hours
PREREQUISITE: Real Estate 43.
Multi-family dwellings and evaluation of commercial and spe-cial-use property. Appraisal reports. ( Scheduled infrequently) (A, CSU)

58 TAX PLANNING AND INVESTING
3 units, 3 lecture hours
PREREQUISITE: Real Estate 41, or equivalent experience. ADVISORY: Eligibility for Math 101 recommended.

Capital gains, depreciation, installment sales, tax deferred exchanges, sale, and lease-back; investment trusts in estate building. (Scheduled infrequently) (A, CSU)

60 ESCROW PRINCIPLES
3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Role and responsibilities of escrow officer, including legal issues, contracts, title insurance, and forms. (Scheduled infrequently) (A, CSU)

## 61 ESCROW PRACTICES

3 units, 3 lecture hours
PREREQUISITE: Real Estate 60, or equivalent experience.
Institutional lenders, sales and assignments of beneficial interests, and property exchanges and transfers. (Scheduled infrequently) (A, CSU)

## 62 ESCROW PROBLEMS AND PROCEDURES

3 units, 3 lecture hours
PREREQUISITE: Real Estate 60, or equivalent experience.
Subdivided lands; new single-family residence, condominium, shopping center; sale and lease-back, bulk, license transfer. Advanced techniques and procedures; title insurer services. (Scheduled infrequently) (A, CSU)

## 63 PROPERTY MANAGEMENT

3 units, 3 lecture hours
PREREQUISITE: Real Estate 40, or equivalent experience.
Methods and procedures; development of a plan; property and neighborhood analysis; tenant selection and maintenance procedures. ( Scheduled infrequently) (A, CSU)

## RECREATION (REC)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats = 3)
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to recreation. Learning objectives established specific to recreation. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 20 INTRODUCTION TO RECREATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Educational opportunities; federal, state, and local relationships; planning programs; finance, and leadership. (CON REC 2) (A, CSU)

## 21 RECREATION LEADERSHIP

3 units, 2 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Theoretical and philosophical basis for leadership. Social dynamics of participation in recreation activities. (CAN REC 4) (A, CSU)

## 23 OUTDOOR RECREATION

3 units, 2 lecture hours, 3 lab hours
COREQUISITE: Recreation 20.
History, development, principles and trends of organized camping, nature and conservation, and outdoor recreation. Laboratory and field trips, including camping and hiking activities. Practical skills in firecrafts, outdoor cooking, and backpacking. Leadership training in camp counseling. Required for recreation majors. (A, CSU)

## 50 ADAPTED RECREATION AND LEISURE

2 units, 2 lecture hours, 4 lab hours, ( 9 weeks)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the regional recreational and leisure venues and opportunities available and accessible for individuals with disabling conditions. Laboratory and field trips including, but not limited to, dining, theater, museums, sports events, concerts, and outdoor activities. (A, CSU)

## RESPIRATORY CARE PRACTITIONER (RCARE)

## 16 PATIENT ASSESSMENT

3 units, 3 lecture hours
PREREQUISITE: Acceptance into the Respiratory Care Program. COREQUSITE: Respiratory Care 17, 18, and 20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the diagnostic tools and techniques used clinically to diagnose and assess the patient with cardiopulmonary dysfunction. (A, CSU)

## 17 FUNDAMENTALS OF PATIENT MANAGEMENT

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Acceptance into the Respiratory Care Program. COREQUSITE: Respiratory Care 16, 18, and 20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Problem-solving and communication skills in fundamental patient care situations utilizing respiratory care concepts and related scientific rationale; cardiopulm onary resuscitation; basic pharmacology. (A, CSU)

## 18 PHYSIOLOGY OF THE RESPIRATORY SYSTEM

2 units, 2 lecture hours
PREREQUISITE: Acceptance into the Respiratory Care Program. COREQUSITE: Respiratory Care 16, 17, and 20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the basic physiologic principles for the cardiopulmonary system with emphasis on the respiratory system. (A, CSU)

## 20 INTRODUCTION TO RESPIRATORY CARE

5 units, 3 lecture hours, 6 lab hours
PREREQUSITE: Acceptance into the Respiratory Care Program. COREQUSITE: Respiratory Care 16, 17, and 18. ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Selected modalities for respiratory care with the physical, mechanical , and scientific principles associated with all attendant equipment. (A, CSU)

## 21 APPLICATIONS AND PROCEDURES IN RESPIRATORY CARE

10 units, 8 lecture hours, 8 lab hours
PREREQUSITE: Respiratory Care 20. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to selected therapeutic and diagnostic modalities for respiratory care, with the physical, mechanical and scientific principles associated with all attendant equipment. Mechanical ventilation (theory and applications), sustained maximal inspiration, pulmonary function testing and chest physiotherapy. Supervised clinical performance in area hospitals. (A, CSU)

## 22 CLINICAL APPLICATIONS IN RESPIRATORY CARE I

8 units, 2 lecture hours, 22 lab hours
PREREQUSITE: Respiratory Care 21. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction into the fully supervised clinical experience of the student respiratory care practitioner. Discerning individual patient needs, developing appropriate care plans and applying correct proce dures. (A, CSU)

## 23 CLINICAL APPLICATIONS IN RESPIRATORY CARE II

8 units, 2 lecture hours, 22 lab hours, (Spring)
PREREQUSITE: Respiratory Care 22. COREQUSITE: Respiratory
Care 25. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction into the fully supervised clinical experience of the student respiratory care practitioner. It includes discerning individual patient needs, developing appropriate care plans, and applying correct procedures to patients in the intensive care setting. (A, CSU)

## 25 RESPIRATORY DISEASE

2 units, 2 lecture hours, (Spring)
PREREQUSITE: Respiratory Care 22. COREQUSITE: Respiratory Care 23. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The pathology, etiology and management of selected respiratory diseases and/or trauma. (A, CSU)

## RETAILING FASHION

SEE FASHION MERCHANDISING

## RUSSIAN SEE FOREIGN LANGUAGES

## SOCIAL SERVICE sEe human services

## SOCIOLOGY (SOC)

## 1A INTRODUCTION TO SOCIOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic concepts, theoretical approaches, and methods of sociology. Analysis and explanation of social systems, socialization and self, in-
stitutions, stratification, inter-/intra-group dynamics, multi-/crosscultural relations, demography, deviance, collective behavior, social change, and global trends. (CAN SOC 2) (A, CSU-GE, UC, I)

## 1B GLOBAL SOCIAL PROBLEMS

3 units, 3 lecture hours
ADVISORY: Sociology 1A and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Social problems in an international context, including issues of development, industrial social changes; racial, ethnic, gender, and economic inequalities; crime; population growth; technology; resources; and the environment. (CAN SOC 4) (A, CSU, UC)

## 2 AMERICAN MINORITY GROUPS

3 units, 3 lecture hours, (See also Human Services 2)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The institutional, ecological, demographic, sociological, and so-cial-psychological aspects of ethnicity and race, and the examination of other non-dominant groups in the United States. (A, CSU, UC)

## 5 SOCIOLOGY OF RAPE

3 units, 3 lecture hours, (See also Human Services 5 and Women's Studies 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Amicro and macro overview of rapeincluding the history of rape, a study of what creates a rape culture, social and psychological characteristics and pathology of rapists, sociological impact upon the psychology of the survivor. Includes the various forms of sexual assault, such as acquaintance rape, marital rape, male rape, gang rape and child sexual assault. The sociological foundation and history of current laws and their execution. (A, CSU)

## 7 DOMESTIC VIOLENCE: ABUSE WITHIN THE FAMILY

3 units, 3 lecture hours, (See also Human Services 7
and Women's Studies 7)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Amicro and macro study of the historical and contemporary problem of domestic violence. Overview of the battered spouse syndrome, characteristics of the survivor and the batterer, therapeutic approaches and development of legislation. Various forms of domestic violence such as child abuse, elder abuse, and violence in same gender relationships. (A, CSU)

10 INTRODUCTION TO AGING STUDIES
3 units, 3 lecture hours, (See also Human Services 10), (Formerly Sociology 22)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to gerontology: theories, concepts, perspectives, and research in the study of aging; psychological and sociological changes; cultural, multicultural, substance abuse, and political issues. Intergenerational and multicultural activities. (A, CSU, UC)

## 14 SOCIOLOGY OF THE MEXICAN AMERICAN COMMUNITY

3 units, 3 lecture hours, (See also Chicano-Latino Studies 14)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Sociological examination of the Chicano in American society: family, religious, educational, economic, and political social institutions. Social problems, social issues, and social change. (A, CSU, UC)

## 31 THE CHILD IN SOCIETY: A SOCIAL PROBLEMS

 APPROACH3 units, 3 lecture hours, (See also Child Development 31)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A social problems approach to the child in society: socialization, the dysfunctional family, abuse, deprivation, disabilities, drugs, delinquency, and special needs. (A, CSU)

## 32 COURTSHIP, MARRIAGE AND DIVORCE: FAMILY AND INTERPERSONAL RELATIONSHIPS <br> 3 units, 3 lecture hours <br> ADVISORY: Eligibility for English 125 and 126 or English 153 or

 ESL 67 and 68 recommended.Introduction to the principles of marriage and family relationships, including love, courtship, mate selection, marriage, sexuality, family planning, pregnancy and childbirth, sexually transmitted diseases, family conflict, conflict resolution, communication skills, divorced families, step-families, aging, and widowhood. (CAN FCS 12) (A, CSU-GE)

40 ALCOHOL AND DRUG ABUSE COUNSELING: LAW AND ETHICS, PREVENTION, EDUCATION, OUTREACH AND REFERRAL
3 units, 3 lecture hours, (See also Human Services 40)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Classification of drugs, legal solutions, restrictions, community
prevention, outreach, screening techniques, intervention and referral, and crisis counseling. (Not open to students with credit in Human Services/Sociology 41) (A, CSU)

## 45 FUTURISTICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Evaluation of possible future changes in human life and society and their effects on the student and the world environment. (A, CSU)

160 BASIC SOCIOLOGY
3 units, 3 lecture hours, (Formerly Sociology 60)
Analysis of society and the self, socialization, stratification, group behavior, multi-/cross-cultural relations, population, deviance, institutions, social change, and global trends. Not open to students with credit in Sociology 1A. (A)
Note: If a student takes SOC 1A and receives a grade of " C " or better subsequent to receiving a " $D$ " or " F " in SOC 160, then the student may apply for academic renewal of the deficient grade in SOC160.

## SPANISH see foreign languages

## SPECIAL STUDIES (SPST)

## 47 (COURSE TITLE TO BE SELECTED)

1/2-3 units, 9 lecture hour equivalents per $1 / 2$ unit of credit
PREREQUISITE: To be determined.
Current topics of importance and concern in a designated subject field or on topics not covered in the regular curriculum or which need to be covered in greater depth than is possible with the regular offerings. Designed for transfer credit. Some topics may be repeatable. Contact the department. (A, CSU, UC)

## 277 (COURSE TITLE TO BE SELECTED)

1/2-3 units, 9 lecture hour equivalents per $1 / 2$ unit of credit
PREREQUISITE: To be determined.
Current topics of importance and concern in a designated subject field or on topics not covered in the regular curriculum or which need to be covered in greater depth than is possible with the regular offerings. Designed for non-transfer credit.

## SPEECH (SPEECH)

## 1 INTRODUCTION TO PUBLIC SPEAKING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Theory and techniques of public speaking. Emphasis on the logical organization and composition of informative and persuasive speeches; practice in clearly stating and developing ideas. (CAN SPCH 4) (A, CSU-GE, UC, I)

## 2 INTERPERSONAL COMMUNICATION

3 units, 3 lecture hours
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to interaction processes in interpersonal communication settings. Emphasis on effective and appropriate uses of verbal and nonverbal messages in the initiation, development, maintenance, and termination of personal and professional relationships. (CANSPCH 8) $(\mathrm{A}, \mathrm{CSU}-\mathrm{GE})$

## 4 PERSUASION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Practice of advanced public speaking and persuasive speech from the perspective of both persuader and audience. Theories of influence, advocacy, and reasoning. (A, CSU-GE, UC, I)

## 8 GROUP COMMUNICATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to group communication as a vehicle for solving problems, reaching decisions, and making recommendations on policy. Students will study and practice the theories, behaviors, and processes of group communication. (A, CSU-GE, UC, I)

## 12 FUNDAMENTALS OF INTERPRETATION

3 units, 3 lecture hours, (See also Theatre Arts 12)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to orally interpreting works of literary art in their intellectual, emotional, and aesthetic entirety. Class readings include poetry, prose, and drama. (A, CSU-GE, UC)

## 20 COMMUNITY INVOLVEMENT

1-3 units, 1 lecture hour, 3-6 lab hours, (Repeats = 3)

ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Theory and practice of community service in nonprofit agencies. Emphasis on the analysis, practice and application of communication theory, leadership, and citizenship through a community service experience. (A, CSU)

25 ARGUMENTATION
3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Analysis, reasoning, advocacy, and criticism of ideas. Emphasis on derived conclusions based on valid evidence and sound inferences without using fallacies of thought and language. Demonstration of basic principles through a variety of oral presentations and written assignments. (CAN SPCH 6) (A, CSU-GE, UC, I)

## 26 INTERCOLLEGIATE FORENSICS LABORATORY

1-3 units: 1 unit, 1 lecture hour, 1 lab hour; 2 units,
1 lecture hour, 3 lab hours; 3 units, 1 lecture hour, 6
lab hours, $($ Repeats $=3)$
PREREQUISITE: None.
Tutorial work in debate and public speaking. In addition to the class hour each week on campus, students must either attend intercollegiate tournaments for a specified number of weekends or participate in on-campus intramural contests. (A, CSU)

## SURGICAL TECHNOLOGY (surgt)

## 101 INTRODUCTION TO SURGICAL TECHNOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction of surgical team concepts with emphasis on the role of the surgical technologist. An overview of the history of surgery, health care facilities and systems, and the surgical environment. Ethical and legal responsibilities and interpersonal relationships. Principles of aseptic technique, sterilization, and basic instrumentation. (A)

102 SURGICAL TECHNIQUES
3 units, 3 lecture hours
PREREQUISITE: Surgical Technology 101
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Discussion and application of the principles of aseptic technique,
procedures relating to patient care, and demonstration of the use and care of supplies and equipment in the operating room. (A)

## 103 SURGICAL PROCEDURES

3 units, 9 lab hours, (Repeats $=2$ )
PREREQUISITE: Surgical Technology 102
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The role of the surgical technologist in surgical procedures. Principles of anesthesiology and surgical pharmacology. (A)

104 CLINICAL PRACTICUM
6 units, 18 lab hours, (Repeats $=2$ )
PREREQUISITE: Surgical Technology 103
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The first of two clinical components of the surgical technology training. Assignment to a hospital surgery department and participation as an independent member of the surgical team to master first scrub role in a surgical team. (A)

## 105 CLINICAL PRACTICUM

6 units, 18 lab hours, (Repeats $=2$ )
PREREQUISITE: Surgical Technology 104
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The second clinical component of the surgical technology training. Participation as an independent member of a surgical team to master the first scrub role. Performance of advanced skills and mastering anticipation of surgical needs. (A)

## SUPERVISED TUTORING (ST) FORMERLY BASIC STUDIES AND INDIVIDUALIZED LEARNING

## 300 SUPERVISED TUTORING

0 units, lab hours arranged, (Repeats = 3), (Formerly
Supervised Tutoring 100)
PREREQUISITE: None.
Provides tutoring assistance to increase the probability of a student's successfully completing his or her education objectives. Hours will vary depending upon individual student need.

## SWAHILI see foreign languages

TEACHER AIDE see educational aide

## THEATRE ARTS (TA)

## 12 FUNDAMENTALS OF INTERPRETATION

3 units, 3 lecture hours, (See also Speech 12)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to orally interpreting works of literary art in their intellectual, emotional, and aesthetic entirety. Class readings include poetry, prose, and drama. (A, CSU-GE, UC)

## 24 THEATRE CRAFTS PRACTICUM

3 units, 1 lecture hour, 6 lab hours, (Repeats $=2$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Technical/design, publicity, or house management functions for Fresno City College theatre productions. (A, CSU)

## 25 THEATRE CRAFTS I

3 units, 3 lecture hours, (Formerly Theatre Arts 34A)
COREQUISTIE: Theatre Arts 24.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Introduction to basic scene construction techniques, materials and hardware of the stage including painting techniques and drafting for the theatre. Practical experience in the preparation of plays for performance. (CAN DRAM 12) (A, CSU, UC)

## 26 THEATRE CRAFTS II

3 units, 3 lecture hours, (Formerly Theatre Arts 34B)
COREQUISITE: Theatre Arts 24.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 and Theatre Arts 25 recommended.

Introduction to alternative stage construction techniques, sound design techniques, lighting instruments, basic electricity and lighting theory. (A, CSU, UC)

## 27 INTRODUCTION TO SCENIC AND LIGHTING DESIGN

4 units, 3 lecture hours, 3 lab hours, (Formerly
Theatre Arts 39, 40 and 41)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and Math 101 and Theatre Arts 25 and 26 recommended.

Introduction to the theory and practice of scenic and light, design concepts, processes and applications to theatrical production. Introduction to lighting design, color theory, lighting instruments, distribution and control. Proper drafting procedures include ground plans, elevations and light plot. Special attention paid to the construction of the scenic model. (A, CSU, UC)

28 INTRODUCTION TO STAGE MAKEUP
2 units, 1 lecture hour, 3 lab hours, , (Formerly Theatre Arts 37)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 and recommended.

Correct methods of applying stage makeup materials. Classroom lectures as well as makeup crew experience. (CAN DRAM 14) (A, CSU, UC)

## 30 THEATRE APPRECIATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

An introduction to the theatre with emphasis on the theatre as an exciting artistic and social experience. Designed for the general student. (CAN DRAM 18) (A, CSU-GE, UC, I)

## 31 THEATRE HISTORY AND DRAMATIC LITERATURE I

3 units, 3 lecture hours, (Formerly Theatre Arts 32A)
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Ancient Greek through Restoration Theatre; dramatic literature and theatre history. (A, CSU-GE, UC, I).

## 32 THEATRE HISTORY AND DRAMATIC LITERATURE II

3 units, 3 lecture hours, (Formerly Theatre Arts 32B)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

History of 18th and 19th century Northern European drama to present. (A, CSU-GE, UC, I).

## 33 SHAKESPEARE IN PERFORMANCE

3 units, 3 lecture hours, (Repeats $=3$ ), (Formerly
Theatre Arts 47)
ADVISORY: Eligibility for English 1A recommended.
Selected Shakespearean drama and poetry. Includes field trips to attend performances. Traditionally offered in summer. (A, CSU-GE, UC, I)

34 COSTUME PRACTICUM
3 units, 1 lecture hour, 6 lab hours, (Repeats = 2)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Costume design/construction or production functions for Fresno City College theatre productions. (A, CSU)

35 COSTUME CRAFTS
3 units, 3 lecture hours, (Formerly Theatre Arts 35A)
COREQUISITE: Theatre Arts 34.

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Techniques used for costume and costume accessory construction. Experience in preparation for play performance and costume crew assignment. (A, CSU, UC)

## 36 COSTUME DESIGN

3 units, 3 lecture hours, (Formerly Theatre Arts 35B)
COREQUISITE: Theatre Arts 34.
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Techniques in costume design. Experience in preparation for play performance and costume crew assignment. (A, CSU, UC)

## 37 FASHION HISTORY

3 units, 3 lecture hours, (See also Fashion
Merchandising 37), (Formerly Theatre Arts 16)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Surveys the evolution of apparel styles through history from Egyptian to contemporary periods. Relation of recurring style trends to contemporary periods. Includes sociological, economic, and political factors affecting apparel through the centuries. (A, CSU)

## 40 PERFORMANCE PRACTICUM

3 units, 2 lecture hours, 12 lab hours, ( 9 weeks),
(Repeats $=2$ )
ADVSORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Rehearsal and performance of plays for public presentation. Credit given for the performance of acting roles, stage management, direction or assistant direction of a Fresno City College theatre production. (A, CSU)

## 41 BEGINNING ACTING

3 units, 3 lecture hours, (Formerly Theatre Arts 31A)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Apersonal approach to acting through improvisation and monologue and scene work. Introduces voice, diction, movement, and character development exercises as preparation for class performances. Designed for non-theatre majors or students who have had little or no experience in acting. Not open to student currently enrolled in, or who have completed Theatre Arts 42. (CAN DRAM 8) (A, CSU-GE, UC)

## 42 BEGINNING ACTING FOR THEATRE MAJORS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Voice, movement, character and scene analysis and preparation of monologues and scenes with class performance. Student should be interested in Theatre Arts as a major and/or have some prior acting experience. Course not open to students currently enrolled in, or who have completed, Theatre Arts 41 or Theatre Arts 31A or Theatre Arts 31B. (A, CSU)

## 43 INTERMEDIATE ACTING

3 units, 3 lecture hours, (Formerly Theatre Arts 31B)
PREREQUISITE: Theatre Arts 41 or Theatre Arts 42.
ADVISORY: TA31A and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Improvisation, body movement, character development; class exercises to develop voice for the stage, classical and contemporary, monologues and scene study with class performance. (CAN DRAM 22) (A, CSU-GE, UC)

## 44 ACTORS WORKSHOP

3 units, 2 lecture hours, 3 lab hours, (Repeats = 1),
(Formerly TA 38A and 38B and 38)
ADVISORY: Theatre Arts 43 recommended. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Skill development for actors with beginning acting experience. Self-directed scenes. Public performance. (A, CSU-GE, UC)

## 348 SENIOR PLAY PRODUCTION

0 units, 1 lecture hour, 9 lab hours, (16 weeks), (Unlimited Repeats)
Organize, write, cast, rehearse, and perform a major seniors' variety show for public performance.

## WELDING TECHNOLOGY (weld)

## 1 EXPLORING WELDING/METALS

3 units, 2 lecture hours, 3 lab hours, (Formerly
Industrial Education 5)
ADVISORY: Eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

An introduction to oxyacetylene and shielded metal arc welding for joining steel in the flat and horizontal positions. An emphasis on safety and developing good manipulative skill. Includes information on cutting, brazing, and an introduction to the MIG and TIG processes. Recommended for students with no prior welding experience. (A, CSU)

2A INTRODUCTION TO WELDING TECHNOLOGY
5 units, 3 lecture hours, 7 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

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Course Descriptions
Oxyacetylene welding and cutting, shielded metal arc, gas metal $\operatorname{arc}$ (MIG), and gas tungsten arc (TIG) welding. An emphasis on good manipulative welding skills for joining steel and aluminum. Use of various electrodes. An introduction to the electrode and base metal classification system. (A, CSU)

## 2B ADVANCED PROCESSES MIG \& TIG

5 units, 3 lecture hours, 7 lab hours, (Repeats $=3$ )
ADVISORY: Welding 2A or equivalent and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Vertical and overhead welding with the shielded metal arc process leading to the American Welding Society (AWS) Structural Welding Code 3G Unlimited Certification Test. Advanced welding skills with gas metal $\operatorname{arc}$ (MIG) and gas tungsten arc (TIG). (A, CSU)

## 3A WELDING DESIGN AND FABRICATION

5 units, 3 lecture hours, 7 lab hours
ADVISORY: Welding 2B or equivalent, Drafting 12, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 or Applied Technology 130 recommended.

Design and fabrication of metal projects by welding. Manufacturing processes, production techniques, and material cost estimation. (A, CSU)

## 3B ADVANCED WELDING DESIGN AND FABRICATION

5 units, 3 lecture hours, 7 lab hours, (Repeats $=3$ ) PREREQUISITE: Welding 3A.
Acontinuation of Welding 3Ain the design, construction, and finishing of welded projects. (A, CSU)

## 4A HEAVY PLATE, STRUCTURAL STEEL WELDING AND CERTIFICATION

5 units, 3 lecture hours, 7 lab hours, (Repeats $=3$ )
ADVISORY: Welding 2B or equivalent, Drafting 12, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 or Applied Technology 130 recommended.

Pre-employment training for structural steel welding technicians. An emphasis on developing certification code-level proficiency in the use of shielded metal arc and flux cored arc welding procedures used in the construction of components on bridges, buildings, and pressure vessel systems. (A, CSU)

## 4B PIPE, TUBE WELDING AND CERTIFICATION

5 units, 3 lecture hours, 7 lab hours, (Repeats $=3$ )
ADVISORY: Welding 2B or equivalent, Drafting 12, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 or Applied Technology 130 recommended.

Shielded metal arc, gas metal arc, gas tungsten arc, and flux cored arc welding processes on different piping systems. Fit up and assembly of various materials and joint configurations used in pressure, power systems, cross country and refinery applications. Certification procedures to the API, AWS, and ASME codes. (A, CSU)

## 19 OCCUPATIONAL WORK EXPERIENCE

1-4 units, (Repeats $=3$ )
COREQUISITE: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class and either be majoring in the field or be enrolled in a course directly related to the job.

Success on the job, including interpersonal, problem solving, and communication skills; office dynamics and adapting to change. Group interaction. Collaborative learning activities specific to welding. Learning objectives established specific to welding. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## 56 BLUEPRINT READING FOR WELDERS

2 units, 2 lecture hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Basic fundamentals of blueprint reading and welding symbol interpretation as required by the welding trade. (A, CSU)

## WOMEN'S STUDIES (wsTs)

SEE ALSO SOCIOLOGY AND HUMAN SERVICES

## 5 SOCIOLOGY OF RAPE

3 units, 3 lecture hours, (See also Human Services 5 and Sociology 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A micro and macro overview of rape including the history of rape, a study of what creates a rape culture, social and psychological characteristics and pathology of rapists, sociological impact upon the psychology of the survivor. Includes the various forms of sexual assaults, such as acquaintance rape, marital rape, male rape, gang rape and child sexual assault. The sociological foundation and history of current laws and their execution. (A, CSU)

## 7 DOMESTIC VIOLENCE: ABUSE WITHIN THE FAMILY

3 units, 3 lecture hours, (See also Human Services 7 and Sociology 7)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Amicro and macro study of the historical and contemporary problem of domestic violence. Overview of the battered spouse syndrome, characteristics of the survivor and the batterer, therapeutic approaches and development of legislation. Various forms of domestic violence such as child abuse, elder abuse, and violence in same gender relationships. (A, CSU)

## 10 CHANGING ROLES OF WOMEN

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The traditional and changing roles of women in Western society. The effects of these roles on women as individuals, in their personal relationships, and their status in society. The contributions and often contrasting perspectives of minority/ethic women. Socialization, culturalization, history, art, language, politics, laws, economics, religion, media, health, wealth, education, psychology, domestic violence, rape, and sexuality. (A, CSU-GE, UC, I)

## 24 LA CHICANA

3 units, 3 lecture hours, (See also Chicano-Latino Studies 24)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A sociological analysis of the Mexican American female in contemporary society. Special emphasis placed on her role in the family, church, education, economics, and politics. (A, CSU, UC)

## 25 ASSERTIVENESS TRAINING

2 units, 2 lecture hours, (See also Human Services
25)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

How to become more effective and creative in expressing oneself in a courteous and dignified manner. Discovering the communication options available in various life situations. (A, CSU)

32 WOMEN AND WORK
3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Examines historical and contemporary roles of American working women. Includes homemaking, employment in traditional and nontraditional occupations, child care, family leave issues, and discrimination and harassment issues. (A, CSU)

## 41 THE AFRICAN-AMERICAN WOMAN

3 units, 3 lecture hours, (See also African-American Studies 41)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Asurvey of the historical and contemporary contributions and issues of African-American women in America. (A, CSU, UC)

## 42 WOMEN AND CHEMICALS

2 units, 2 lecture hours, (Formerly Women's Studies
44)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The nature and scope of the chemically dependent female, the effects of harmful chemicals on women, victimization, stigmatization, and problems in recovery. (A, CSU)

## 43 WOMEN'S NUTRITION

2 units, 2 lecture hours, (See also Food and Nutrition 43)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The relationship between nutrition and various contemporary health issues affecting women. Significance of nutrition as it relates to the health of women during specific stages in the life cycle. Current trends and research. (A, CSU)

## 44 WOMEN IN MANAGEMENT

3 units, 3 lecture hours, (See also Business
Administration 44)
ADVISORY: BA/MGMT 10 and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Management and entrepreneurial techniques for women seeking leadership skills, particularly for managers and those aspiring to executive levels. (A, CSU)

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Course Descriptions

## 45 RE-ENTRY CAREER PLANNING AND DEVELOPMENT

1 unit, 2 lecture hours, ( 9 weeks), (See also
Guidance Studies 45)
Career and educational development for the college student: assessment (testing), occupational information, and decision-making strategies. Emphasis: women over age 24 who are returning to school after a significant break in their education. (A, CSU)

## 46 RE-ENTRY JOB PREPARATION

1 unit, 2 lecture hours, ( 9 weeks), (See also
Guidance Studies 46)
How to locate job openings, prepare a personal resume and application letter. Practice in filling out applications techniques for job interviews. Exploration of related job topics such as job market and career implications. Emphasis: Women over age 24 who are returning to school after a significant break in the education. (A, CSU)

## WOODWORKING see cabinetmaking technology

(CABNT)

## WORK ASSESSMENT VOCATIONAL EDUCATION (wave)

## 201 DEVELOPING INDIVIDUAL VOCATIONAL EVALUATIONS

 (DIVE)1-3 units, 1-2 lecture hours, 0-3 lab hours, (Credit/
No Credit), (Repeats = 3), (Open Entry/Open Exit) PREREQUISITE: None.
Designed for student with barriers to employment. An introduction to vocational training and employment counseling. Various assessment tools in order to determine vocational interest, aptitude and abilities. Grooming, hygiene, stress/anger management, time management, and workplace relationships.

202 SITUATIONAL ASSESSMENT, WORKSITE AND INTERNSHIP MODEL (SWIM)
1-8 units, 1-6 lecture hours, (Credit/No Credit), (Repeats = 3), (Open Entry/Open Exit) PREREQUSITE: None.
Designed for students with barriers to employment. An emphasis on developing skills in the areas of time management, following directions, instructions, and appropriate work behaviors. Exposure to vocational education and training to assist students in selecting and planning vocational choices. Career awareness, exploration, preparation, and utilization of community resources. The amount of college credit earned by the student is dependent upon the number of volunteer hours worked during the semester as follows: a. one unit for minimum of 60 hours; b. two units for minimum of 120 hours; c. three units for minimum of 180 hours; d. four units for minimum of 240 hours; e. five units for minimum of 300 hours; f. six units for minimum of 360 hours; g. seven units for minimum of 420 hours.

## WORK EXPERIENCE, GENERAL (wkexp)

## 19 GENERAL WORK EXPERIENCE EDUCATION

1-3 units, (Repeats = 1)
COREQUISITE: Must be enrolled in minimum of 7 units, including general work experience and have a job or be volunteering.

How to be successful in a college class and on the job. Interpersonal dynamics and finding solutions to real life problems. Exploring basic academic skills, communicating, adapting to new situations, and problem solving. Group interaction and collaborative learning activities. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. (A, CSU)

## ZOOLOGY (SEe BIOLOGY)

## SPECIAL AREAS OF STUDY

## Career and Technology Center

Located off Fresno City College's main campus, the Career and Technology Center offers a learning environment for practical hands-on education. Year-round registration is in effect for a variety of noncredit, openentry classes. Counseling and job placement services are available.

CTC is located at 2930 E. Annadale Avenue, Fresno. For a complete listing of classes, call (559) 486-0173.

## AUTOMOTIVE COLLISION REPAIR (ACRctc)

## 370 AUTOMOBILE COLLISION REPAIR AND PAINT

 REFINISHING5 lecture hours, 25 lab hours, ( 30 weeks), ( 900 total hours), (Repeats $=3$ ), (Formerly BFVTC 70 and ACRVTC 370)
Use of hand tools and power tools; gas welding and MIG welding, plasma cutter, metal shrinking, and plastic filler work; basic metal straightening, major body repairs, plastic panels repairs; basic frame and alignment repair; rust damage reconstruction sanding, masking, and introduction to spray painting, and advanced spray painting and refinishing.

## AUTOMOTIVE MECHANICS (amctc)

## 371 ENGINE REPAIR

10 lecture hours, 20 lab hours, (20 weeks), (600
total hours), (Repeats = 3), (Formerly AMVTC 71)
Preparation for ASE certification in engine repair. Practical and theoretical training in general engine diagnosis, cylinder heads, valve train, engine block, lubrication, and cooling systems.

## 372 ENGINE PERFORMANCE

10 lecture hours, 20 lab hours, ( 30 weeks), (900 total hours), (Repeats = 3), (Formerly AMVTC 72) Basic skills necessary for an entry level job. Competency-based similar to those operations performed by automotive shop professionals. Prepares students to take the ASE certification tests.

## 373 BRAKES, SUSPENSION AND STEERING

10 lecture hours, 20 lab hours, ( 20 weeks), ( 600 total hours), (Repeats $=3)$, (Formerly AMVTC 73) Preparation for ASE certification in the brake, suspension, and steering systems. Practical and theoretical training in wheel alignment, wheel balancing, wheel bearing service, suspension systems, steering systems, brake systems, CV joints, and axles.

## BUILDING MAINTENANCE (вMстс)

## 370 BUILDING MAINTENANCE

10 lecture hours, 20 laboratory hours, (20 weeks), (600 total hours), (Repeats $=3$ ), (Formerly BMVTC 70)

Drywall repair, carpentry, hardware, plumbing, masonry, painting and electrical.

## INDUSTRIAL TRAINING (ITcTC)

## 371 WAREHOUSE AND DISTRIBUTION CAREERS

6.65 lecture hours, 13.35 lab hours, (10 weeks),
(Repeats = 3), (Formerly ITVTC 71)
Forklift driving, basic computer operation, inventory control, cash register operation, strapping equipment and warehouse procedures.

## MAINTENANCE MECHANIC (MMCTC)

370 FUNDAMENTALS OF WELDING AND MACHINE SHOP
10 lecture hours, 20 lab hours, (10 weeks), (300
total hours), (Repeats = 3), (Formerly MMVTC 70)
Basic gas, arc, and short arc (mild steel only). Precision mea-
surement, hand tools, engine lathe, drilling, milling.

371 FUNDAMENTALS OF HYDRAULICS AND PNEUMATICS
10 lecture hours, 20 lab hours, (10 weeks), (300
total hours), (Repeats $=3$ ), (Formerly MMVTC 71)
Pumps, actuators, valves, schematics, compressors.

372 ELECTRICAL FUNDAMENTALS
10 lecture hours, 20 lab hours, (10 weeks), (300
total hours), (Repeats $=3$ ), (Formerly MMVTC 72)
Electrical principles, AC/DC circuits, motors, motor starters, relays, wiring, troubleshooting, schematic reading, test instruments.

## Developmental Education Program

The Developmental Education Program is designed to prepare students for degreecreditinstruction. The program is recommended for students who are assessed as not meeting the skills requisites for Math 1 or English Aor 53. It is not recommended for students who are learning English as a second language or who have identified learning disabilities. Course credits earned in the program do not count for the associate degree but do count for determining full- or part-time student status (i.e., workload credit). The particular courses a student takes depend upon the individual needs of the student.

## Entrance into the Program

Assessment of academic preparation for college-level instruction is recommended for all students entering Fresno City College. It is required for all students wanting to enroll in English and mathematics courses.

Entry into the Developmental Education Program dependsupon English andmath placementtesting results. When placementtest scores in reading are 15 and below or in English written expression are 19 and below or in mathematics are 24 and below, appropriate developmental education program courses in English or math are recommended.

Other courses in the program supplement instruction in developmental education English and mathematics courses. For example, exploratory courses in selected academic departments reinforce the reading and writing skills being learned in the developmental English courses. Aguidance studies course called "Orientation for Academic Success" is recommended for all developmental students.

## Benefits of the Program

Developmental Education students enjoy the following benefits:
D Development of reading, writing, and computation skills sufficient to succeed in college level instruction

D Curriculum tailored to the individual's particular needs so that courses taken are consistent with one's background and experience
D Development of beginning level of computer literacy
D Opportunity to review previously learned material
D Emphasis on helping students succeed at the college

- Specially trained teachers and counselors who understand and are sensitive to student worries and fears


## Developmental Education Curriculum

## Units


English 252, Writing Improvement ...................................................... 4
ENGLISH READING
English 260, Basic Reading .. 4
English 262, Reading Improvement .................................................... 4
MATHEMATICS
Math 260, Arithmetic Review .......................................... Maximum of 6
or Math 270, Fundamental Math .................................................... 3
and Math 250, College Arithmetic .................................................... 3
CONTENT AREA READING AND WRITING
SKI LL REI NFORCEMENT
Biology 270, Biology Readiness ........................................................... 3
English 265, Reasoning and Decision Making for
Daily Living
Math 265, Introduction to Math, Problem Solving ............................... 2
OTHER RECOMMENDED COURSE
Guidance Studies 70, Orientation for Academic Success. .. 1

## Honors Program

The Leon S. Peters Honors Program at Fresno City College provides an enriched educational experience to recognize and meet the needs of academically excellent students. Students who qualify, and are accepted to enter the Honors Program, benefit from the experience regardless of major, because of a specially selected curriculum that is set within the framework of the transfer program of all University of California and California State University campuses. The courses are innovative and reflect the instructors' interest in and commitment to the program's academic, intellectual, cultural, and social goals.

## Benefits

Honors students enjoy the following benefits:
D Special sections of regular classes usually with 25 or fewer students per section

- Specially selected, experienced, and highly qualified faculty

D Faculty mentors

D Registration, counseling, and transfer assistance
D Scholarships

- Priority acceptance at a University of California or California State University campus
D Opportunities to participate in cultural, social, and intellectuallystimulating activities
- Recognition on transcripts


## Requirements for Consideration of Acceptance

The following requirements apply for consideration for acceptance into the Honors Program:

- G.P.A. of 3.5 ( 4.00 scale) , or
- Graduation from high school in the top 25th percentile, or
- Combined scores of 1000 on the SAT or a composite score of 25 on the ACT, and
D Superior performance on an essay, and
- Three letters of recommendation, and

D Eligibility for English 1A, and
D Successful interview by the Honors Advisory Committee.

## The Honors Curriculum

FIRST SEMESTER Units
BIOL 1H, Honors Principles of Biology................................................. 4
ENGL 1AH, Honors Reading and Composition ..................................... 4
HONORS 1, Honors Science Colloquium ............................................. 1
Transferable electives .................................................................. 4-8
Total 13-17
SECOND SEMSTER Units
ART 5Hor 6H, Honors Art History ........................................................ 3
ENGL 1BH, Honors Introduction to Literature....................................... 3
HST 1H or 2H, Honors Survey of Western Civilization .......................... 3
HONORS 1, Honors Humanities Colloquium ....................................... 1
PHL 1AH, Honors Theories of Knowledge/Existence/Beauty.................. 3
Transferable electives6-10

Total 13-17
THIRD SEMESTER Units
ANTHRO 2H, Honors Cultural Anthropology ....................................... 3
HONORS 1, Honors Social Science Colloquium ................................... 1
HONORS 1, Honors Phi Theta Kappa Colloquium ............................... 1
PSY 2H, Honors General Psychology .................................................... 3
Transferable electives ................................................................ 6-10
Total 14-17
FOURTH SEMESTER Units
BA/MGMT 10H, Honors Introduction to Business.................................. 3
ECON 1AH, Honors Macroeconomics ................................................... 3

ENGL3H, Honors Critical Reading \& Writing ....................................... 3
HONORS 1, Honors Business \& Economics Colloquium ....................... 1
Transferable electives ............................................................... 7-9
Total 14-16
Required Honors Units 21
Total Required Units 56-60
The above pattern is recommended. Variations may be approved by the Honors Program Director.

Second Semester and Fourth Semester courses may be interchangeable.

## Requirements After Acceptance

1. All Honors students must have satisfactorily completed or be concurrently enrolled in or be eligible for advanced placement credit in English 1Ain order to enroll in any other Honors course.
2. To remain in good standing in the Honors Program, an Honors student must:
a. enroll in at least 3 units of Honors courses each semester for a maximum of four semesters and
b. maintain a cumulative grade point average of 3.25 or better.
3. To graduate and/or transfer as an Honors Program Scholar Graduate, a student must complete

## a. a minimum of 18 units of Honors Core courses and

b. a minimum of 3 units of Honors colloquia with no duplication in colloquia emphasis.

## Becoming an Honors Student

If you would like to be considered for acceptance into the Leon S. Peters Honors Program, contact the Honors Program Director in writing at the college's address or by calling the Honors Program Office, 442-8207. Information, applications, and assistance are available from the Honors Program Director.

## Cooperative Work Experience Education

The cooperation of Fresno City College, business, industry and the community makes it possible for students to earn elective credit toward a degree and/or a certificate of achievement through employment experience. For the satisfactory completion of the program of cooperative work experience education, the college will grant credit to a student in an amount not to exceed four (4) units per semester for occupational/vocational work expe rience or three (3) units per semester for general work experience.
The Cooperative Work Experience Education Program can be an important motivating experience, especially for those who have had inadequate opportunities to learn about the working world. The students meet weekly with an instructor-coordinator who is well prepared professionally to assist in the development of job skills. The coordinator makes on-site job visita-
tions at which timehe/sheconfers with thestudent's supervisor. Thestudent's work performance and progress is evaluated by both the coordinator and the supervisor.

## Types of Cooperative Work Experience

1. General work experience education is the supervised employment of students with the intent of assisting them to acquire desirable work habits, career awareness, and positive attitudes in jobs. The jobs held by students need not be related to their occupational goals or college program.
2. Occupational/vocational work experience education is the extension of occupational learning opportunities and career awareness for students through employment in the occupational fields for which their college programs or majors are designed.

## School Credit

For the satisfactory completion of cooperative work experienceeducation, the college shall grant credit to a student not to exceed a total of sixteen semester credit hours.

1. General work experience education: Enrollmentlimited to two semesters with a maximum total of three semester credit hours per semester.
2. Occupational/vocational work experience education: No more than four credit hours per semester with a maximum total of sixteen semester credit hours.
Duplicate credit shall not be granted for concurrent enrollment in general work experience education and occupational/vocational work experience education. The amount of college credit eamed by the student for cooperative work experience education is dependent upon the number of hours of work during the semester as follows:

One unit of credit for each 75 hours of paid work hours, or one unit of credit for each 60 hours of volunteer work hours, up to a maximum of 4 units for occupational work experience, 3 units for general work experience.

## Transfer Credits

Most four-year institutions will accept up to eight units of cooperative work experience credit toward completion of the bachelor's degree upon transfer.

## Qualifications

In order to qualify for either the general or occupational/vocational Cooperative Work Experience Education Program, the student must be enrolled in and maintain a 7 -unit college load including the work experience class throughout the semester. The student's supervisor must be located in the Fresno City College service area and be easily accessible to the instructor. During each semester enrolled in cooperative work experience, the student must attend the coordinating class for one hour per week.

In addition to the above requirements, studentsenrolling in occupational/ vocational work experience courses must be employed in occupationswhich
provide experience directly related to their occupational major. Title 5, Part VI, Division 6, Chapter 3, Section 55254 of California Administrative Code.

## The Enrollment Process

If students are interested in enrolling in cooperative work experience education or obtaining more information, they should contact one of the cooperative work experience instructors or a college counselor. Those students qualified to enroll will obtain authorization to register from the Work Experience Office, A102. The occupational work experience courses are listed in the schedule under the various occupational subjects and are always designated by the 19 series, except for Art 19. General work experience courses are listed under Work Experience, General.

See catalog description of courses for further information.
Majors and areas of study in which students may currently obtain occupational/vocational work experience credit are:
D Accounting

- Air Conditioning
- Anthropology

D Automotive Technology

- Apprenticeship
- Business Administration

D Business \& Technology

- Cabinetmaking Technology
- Child Development
- Construction (Carpentry)
- Criminology

D Drafting
D Educational Aide
D Educational Aide/Paraeducator
D Electrical Systems Technology
D Fashion Merchandising

- Food Service Management
- Graphic Communications
- Home Economics
- Human Services

D Information Systems
D Journalism
D Marketing

- Medical Assisting

D Photography
D Recreation

- Registered Nursing

D Theatre Arts-Technical Theatre
D Welding
Note: Actual class offerings vary by semester.

## COLIEGE PERSONNEL

State Center Community College District<br>\section*{Board of Trustees}<br>Adolfo M. Corona<br>Phillip J. Forhan<br>Ron Manfredi<br>Patrick E. Patterson<br>Dorothy Smith<br>William J. Smith<br>Leslie W. Thonesen<br>Administration<br>Dr. Judith A. Redwine Chancellor<br>J on Sharpe<br>Executive Vice Chancellor,<br>Administration and Finance<br>Dr. Shirley A. Bruegman<br>Vice Chancellor, Educational<br>Services and Planning<br>Randy Rowe<br>Associate Vice Chancellor, Human<br>Resources<br>Dr. John H. Cummings District Dean, Admissions, Records<br>and Institutional Research<br>J oaquin J imenez<br>District Associate Dean of Students, Financial Aid

## Fresno City College

Administration
A new college president will be appointed by July 2002.
Anthony D. Cantú
Dean of Instruction
Robert E. Fox
Dean of Student Services
Michael J. Guerra
Business Manager
Elizabeth Carlisle Executive Director, Training Institute

Instructional Deans
Dr. Philip L. Andreini
Associate Dean of Instruction, Humanities Division

Richard I. Christ|
Associate Dean of Instruction, Applied Technology Division
Dr. Carolyn C. Drake
Associate Dean of Instruction, Health Sciences Division

Sherian H. Eckenrod, Associate Dean of Instruction, Business Division
Dr. J annett Jackson
Associate Dean of Instruction, Learning Resources

Dr. Margaret E. Mericle
Associate Dean of Instruction, Social Science Division
Shirley Porteous-Gafford
Associate Dean of Instruction, Mathematics, Science and Engineering Division

## Student Services Deans

Dr. Lee Farley
Associate Dean of Students/
Director, Career and Technology Center

Deborah J. I keda
Associate Dean of Students, Counseling and Guidance
Ernest I. Smith
Associate Dean of Students, Workforce Development \& Special Services

## Faculty and Administration

```
Aguilar, Luis E. (1985)
    Automotive Collision Repair ( CTC)
    California Community College Credential
Albright, Linda S. (1981)
    Nurse
    R.N., Trinity Hospital School of Nursing,
    Minot, ND
    B.S.N., Montana State University,
    Bozeman
Amaro, Arthur N. (1973)
    Chicano-Latino Studies, Sociology
    AA, Modesto Junior College
    B.A, California State University,
    Stanislaus
    M.A, San Jose State University
Anderson, Lydia (1997)
    Business Administration
    AA, Reedley College
    B.S., M.B.A., California State University,
    Fresno
Andreen, Kristi (2000)
    Respiratory Therapy
    B.A., University of Redlands
    M.A, Fresno Pacific University
Andrade, Tiffany (1997)
    Mathematics
    B.A, M.A., California State University,
    Fresno
Andreini, Philip L. (1999)
    Associate Dean of Instruction,
    Humanities Division
    B.A, University of California, Berkeley
    M.A, University of California, Santa
    Barbara
    Ph.D., University of Michigan
Arakelian, Charlotte A. (1983)
    Counselor, Disabled Students
    Programs & Services
    B.S., M.A, California State University,
    Fresno
Arechiga, Mary L. (1989)
    English
    AA, Fresno City College
    B.A, M.A, California State University,
    Fresno
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Arredondo, Alfred V. (1975)
Counselor
A.A., Fresno City College
B.S., M.S.W., California State University, Fresno

Arth, Raymond G. (1977)
Photography
B.A, Brooks Institute of Photographic Arts \& Sciences
M.A, Pepperdine University

Atkinson, Dennis C. (1990)
Automotive Technology
A.A., Fresno City College
B.A, California State University, Fresno

Baber, Roberta (1986)
Information Systems
B.S., California State College, Los Angeles
M.B.A, California State University,

Northridge
Badertscher, Lynn (1994)
Speech
B.A, M.A, California State University,

Fresno
Balogh, David (2001)
Physics
B.S., M.S., Brigham Young University

Barron, Julie (1999)
Music
B.A., San Diego State University
M.Mus.Ed., University of Northern

Colorado
Bates, Robyn L. (1990)
Art
B.F.A, University of Southern California
M.A., California State University,

Northridge
M.F.A, California State University, Los

Angeles
Bayer, Patricia (1999)
Counselor
B.A., M.S., California State University,

Fresno
Beck, Allen C. (1974)
Anthropology
A.A., Modesto Junior College
B.A, California State University, Fresno
M.A., University of Califormia, Riverside

Begley, Polly (2000)
Speech
B.A., M.A., San Diego State

Bertolani J r., William J . (1987)
Criminology
B.A, Fresno State College
M.A, California State University,

Sacramento
Bezerra-Nader, Rosemarie (1990) Developmental Mathematics B.A, California State University, Fresno M.A, Fresno Pacific College

Bigham, Craig (1999) Mathematics B.S., M.S., California State University, Fresno

Bill, Gerald M. (1970)
Sociology
B.A, Williamette University
M. Div., Pacific School of Religion
M.A, California State University, San

Francisco
Blackerby-Slater, Laurel (2001) Mathematics
B.S., University of California, Davis
M.A, Fresno Pacific University

Bluth, Gary (1991)
Physical Education
B.A, M.A, San Francisco State

Bolt, Sandra B. (1999)
Business \& Technology
A.A, Fresno City College
B.S., California State University, Fresno
M.B.A, National University

Bousquet-Heyne, Bridget (2001)
Nursing
A.A, Reedley College
B.S., University of California, Los Angeles
A.D.N., Forest Park Community College
M.S.N., California State University, Fresno

Boyd, Robert (1996)
Philosophy
B.A. Trinity College
M.A, Texas Christian University

Boyd, Steven (1992)
Respiratory Care
B.S., Louisiana State University
B.S., Louisiana State University Medical Center

Brewer, Melinda (2001)
Child Development Center
B.S., M.S., California State University, Fresno
Brooks, Walter (1970)
Counselor
B.A, M.A, San Francisco State College

Brown, Gennean (2001)
English
B.A, Oral Roberts University
M.A., California State University, Fresno

Brown, Robert (2001)
Counselor
B.A, San Diego State University
M.A, Point Loma Nazarene College

Brunetti, Pat A. (1982)
Nurse
AA, Fresno City College
B.S., Chapman College
P.H.N., University of California, San Francisco
Bugay, Elnora (1995)
Nursing
B.S.N., Long Island University
M.S.N., California State University, Fresno

Byrns, Dennis C. (1995)
Fire Technology
AA, Santa Ana City College
B.A California State University, Fresno

Caddell, Joseph (1998)
Chemistry
B.S., M.S., Ph.D., University of California, Davis
J.D., Golden Gate University School of Law
Calhoun, Brian (1988)
Education
B.A University of California, Davis
M.A., Syracuse University

Ph.D., University of Wisconsin, Madison
Campbell, Lynn (2001)
English
B.A, Southeastern College
M.S.Ed., State University of New York, Genesco
Canales, Leticia S. (1996)
Counselor
AA, Kings River Community College
B.A. M.A., California State University,

Fresno

Cantú, Anthony D. (1987)
Dean of Instruction
B.A, California State University, Long

Beach
M.A, California State University, Long Beach (French)
M.A, California State University, Fresno (Linguistics/ESL)
Castagna, Paula (1992)
Mathematics
B.A, Northeastern Illinois University
M.S., California State University, Fresno

Caviglia, Tony (1999)
Physical Education
A.A, Chabot College
B.A, California Polytechnic, San Luis Obispo
M.A., University of Southern California

Cerda, Ricarda (2000)
Food \& Nutrition
B.A, M.S., California State University, Fresno
Cerkueira, Ronald C. (1996)
Computer Aided Drafting and Design
B.A, M.A, California State University, Fresno
Chandler, Donna (2001) Librarian
AA., University of Maryland
B.A, M.L.S., San Jose State University

Cho, John
B.A, M.A, California State University, Fresno
Chavez, Kenneth R. (1988) Counselor
B.A, California State University, Fresno M.S., National University

Cho, John (2001)
Asian-American Studies B.A, M.A, California State University, Fresno
Christl, Richard I. (1970)
Associate Dean of Instruction, Applied Technology Division AA, Porterville Junior College B.A, California State University, Fresno M.A, Fresno Pacific University

Cleveland, Sandra (1976)
Nursing
B.S.S., Florida State University
M.S.N., California State University, Fresno

Colbert, Kristine (2001)
Child Development
B.A., M.A., California State University,

Fresno
Colby, Camilla C. (1969) Spanish
B.A, University of San Francisco
M.A., California State University, Fresno

Cole, Wayne (1990)
English
B.A, M.A, California State University, Fresno
Contreras, Luis (1999)
English
B.A, M.S.W., M.A, California State

University, Fresno
Covington, J eanette A. (1982)
Learning Disabilities, English
AA, Fresno City College
B.A., M.A., California State University, Fresno
Crawford, Kathleen (1999)
History
B.A, California State University, Fresno
M.A., University of California, Los Angeles

Crider, Andrew B. (1998)
Police Academy Coordinator
B.S., M.A., California State University,

Fresno
Crooks-Cheney, Judith A. (1999)
Dental Hygiene
AA, Monterey Peninsula College
AS., Fresno City College
B.A, California State University, Fresno

Cuevas, Monica C. (1999)
Director, Manchester Educational Resource Center
B.A, California State University, Fresno
M.S., National University, Fresno

Culp, Robbey C. (1995)
Chemistry
B.S., M.S., California State University,

Fresno

Cummings, John H. (1996)
District Dean, Admissions, Records
and Institutional Research
B.A. West Virginia Wesleyan College
M.S.B.A, Boston College

Ph.D., International College of the
Cayman Islands
Curtis, Carol (1994)
Mathematics
B.A., M.A., California State University, Fresno

Dana, Michael E. (1990)
Music
B.A, M.A., California State University, Fresno
Daniels, Stevie (1997)
Coordinator, ESL
AA, College of the Sequoias B.S., M.S., California State University, Fresno
Davenport, David Paul (1990)
History, Geography
AA, West Hills College
B.A., Cal. State University, Fresno
M.A, Cal. State University, Fresno (History)
M.A, Cal State, Fresno (Geography)

Ph.D., University of Illinois
Deeter, Gary, (1981)
Music
B.A, California State University, Fresno
M.A, University of San Francisco

DeKruif, Linda (1998) Women's Studies, Psychology B.A. M.A., California State University, Fresno

Demanett, Paula (2000) Librarian
B.A., University of California, Riverside M.L.S., Brigham Young University M.A. Fresno Pacific University

Denver, Monta (1986)
Dental Hygiene A.A, Montgomery County Community College
A.S., Fresno City College
B.S., M.S., California State University, Fresno

Dorn, Lawrence S. (1989)
Mathematics, Developmental Math
B.A., California State University, Fresno
M.B.A, California State University, Fresno

Douty, Douglas A. (1984)
Electronic Technology
B.A., M.S., California State University, Fresno
Drake, Carolyn C. (1978)
Associate Dean of Instruction, Health Sciences Division B.S.N., M.S.N., California State University, Fresno
Ed.D., University of Southern California
Duncan, Janet F. (1990)
Business \& Technology
B.S., Northern Montana College

Dunklin, Marianne (2001)
Business Administration
B.S., M.B.A, Creighton University

Ph.D., University of Kansas
Dustin, Ron (1996)
Accounting
B.A, M.B.A, California State University, Fresno

Dzerigian, Steven V. (1987)
Photography
B.A., University of California, Los Angeles

Eckenrod, Sherian H. (1979)
Associate Dean of Instruction, Business Division
B.S., M.A., University of New Mexico

Edison, J ames S. (1997)
Police Academy Coordinator
A.A., Shasta College

Edwards, Sarah (1998)
Health Information Technology
A.A., Reedley College
B.A., California State University, Fresno
B.S., Loma Linda University

Elgin, Judy A. (1987)
Business and Technology
A.A., Fresno City College
B.S., California State University, Fresno
M.B.A, Golden Gate University

Elizondo, Tony (1993)
Automotive Mechanics (CTC)
A.A. San Joaquin Delta College
B.A, California State University, Fresno

Elliott, J acqueline (1995)
Art
B.F. A., Corpus Christi State University
M.A, M.F.A, University of Dallas

Emerling III, Fred M. (1984)
Counselor
A.A, Glendale Community College
B.A., University of Alabama
M.Ed., Ph.D., University of Arizona

Emerzian, Janice M. (1975)
Director, Disabled Students
Programs \& Services
B.A., M.A., California State University,

Fresno
Ed.D., University of Laverne
Engel, Kathleen (1980)
Nursing
B.S.N., M.S.N., California State University,

Fresno
Engstrom, Dale (2001)
Music
B.A, M.A. California State University, Fresno

Erven, Milton "Chuck" (1999)
Theatre Arts
B.S., Eastern New Mexico
M.A., University of Maryland

Ewing, J ames (1990)
English
B.A. Howard Payne College
M.A, Rice University

Ph.D., Texas A \& M University
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Information Systems
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Economics
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Nursing
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Tutorial Resources
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English
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Business \& Technology
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Welding, Metal Fabrication
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Construction
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Electronic Technology,
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Mathematics, Developmental Math
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Physical Education
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Information Systems
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Dental Hygiene
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Air Conditioning
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Spanish
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Geology
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Mathematics
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Watson, Donald G. (1968) Counselor
AB., California State University, Fresno
M.A, San Fernando Valley State College

Webb, Bernida (2001)
Art
B.A, Carleton College
M.A., University of Denver

Wen, I xin (2000)
Mathematics
B.S., Lan Zhou University, China

Ph.D., Arizona State University
Wen-Howe, Julie (1990)
Developmental Mathematics
B.Ed., National Taiwan Normal University
M.A., California State University, Fresno
M.A, Fresno Pacific College

West, Laura (1999)
Art
B.FA., Southerm Illinois University
M.F.A, Idaho State University

Wheeler, Dan (1994)
Theatre Arts
B.A, University of Wisconsin, Eau Claire M.A, University of Wisconsin, Superior
M.F.A, University of Southern California

Whitehead, Tina (1999)
Business and Technology
B.A, California State University,

Stanislaus
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Williams, Elizabeth (2000) Librarian
B.A, University of Houston, Texas
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Williams, Rhonda (1999)
Physical Education
B.A, Fresno Pacific
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Woolsey, Denise (2001)
Business and Technology
B.S., Northern Arizona University
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Woolsey, Mark J. (1989)
Speech, Forensics
B.S., Northern Arizona University
M.A., California State University,

Northridge
Wortham, Kenneth (1990)
Biology
B.S., M.S., Western Kentucky University

Ed.D., Ball State University
Wosika, Kathleen A. (1975)
Art
B.A, University of Illinois
M.A., San Diego State University

Wrzalinski, Eugene S. (1984)
Environmental Technology
B.A, M.A, California State University, San Bernardino
Yang, Victor Bee (1999)
Counselor
B.S., University of Nebraska at Omaha
M.S., National University

Yarbrough, Thomas (1997)
Engineering
B.A, California State University, Fresno
M.A., Consortium of California State

Colleges and Universities
Yates, Susan E. (1984)
Athletic Director, Physical
Education
B.A, California State University, Fresno
M.A., University of San Francisco

Zamora, Kenneth C. (1992)
Architecture
AA, College of the Sequoias
B.Arch., B.S., California Polytechnic

University, San Luis Obispo

| Emeritus Faculty |
| :--- |
| Acosta, Adrian |
| 1971-1999 |
| Counselor |
| Alvarez, Manuel E. |
| 1971-1992 |
| Electronics |
| Andersen, L. LeGrand |
| 1974-1999 |
| Vocal Music |
| Andrews, Robert N. |
| 1971-1996 |
| Automotive Technology, Industrial |
| Education |
| Angarano, Angelo P. |
| 1968-1984 |
| Philosophy, English |
| Arroyo, Robert F. |
| 1969-1999 |
| Associate Dean of Students, |
| Director, EOP\&S |
| Asbury, Betty J. |
| 1961-1978 |
| History |
| Azamber, Eugene C. |
| 1966-2001 |
| Business Administration, Management |
| Balakian, Elizabeth |
| 1962-1995 |
| English |
| Bartels, Fred W. |
| 1965-1999 |
| Physical Education |
| Bartels, Richard W. |
| 1970-1999 |
| History, Political Science |
| Beal, Jonell |
| 1957-1982 |
| English, Speech |
| Beasley, Wilbur S. |
| 1963-1984 |
| History, Political Science |
| Bell, Calvin |
| 1968-1984 |
| Counselor |
| Em |


| Bell, Edward 1979-1986 Auto Mechanics | Coffman, Charles M. 1948-1972 <br> Automotive Mechanics, |
| :---: | :---: |
| Bengel, Earl 1968-1997 | Industrial Mathematics, Human Relations |
| Engineering | Cornwell, Gerald D. |
| Bingham, I sabell H. 1970-1982 | 1961-1990 Business |
| Home Economics | Cramer, Ray C. |
| Blackburn, Norma D. 1961-1979 Legal Secretaryship | 1956-1995 <br> Associate Dean of Instruction, <br> Mathematics, Science and Engineering <br> Division |
| Boucher, Richard 1964-1996 Electronic Technology | Curry, Ruth 1981-1998 <br> Philosophy, English, Humanities |
| Bourdet, Malcolm L. 1957-1990 Physical Education | Davy, Thelma L. <br> 1965-1973 <br> English |
| 1974-1990 <br> Associate Dean of Instruction, Health Arts and Sciences | Day, William H. 1964-1990 Chemistry |
| Brown, Richard S. 1964-1986 Geology | DeKoning, Richard M. 1958-1982 Drafting, Mathematics, Architecture, Industrial Education |
| Bruns, Paul M. 1958-1990 Chemistry | DeManty, Arthur S. 1963-1981 General Business |
| Byrd, Ronald F. 1968-2001 Librarian | DePry, Ronald N. 1970-1993 Biology |
| Castine, John 1955-1984 English | Dickie, David R. 1965-1996 Drafting, Industrial Education |
| 1958-1978 English | Discont, Conrad M. 1963-1994 <br> English, Humanities, Speech |
| 1968-1991 <br> Reprographics, <br> Industrial Education | Dose, Kenneth D. 1971-1999 Physical Education |
| ```Christian, Peter C. 1958-1981 English``` | Dotts, John 1981-1996 Industrial Education, Construction, Mathematics |
| Cleland, Richard L. <br> 1959-1996 <br> College Business Manager | Dougherty, Sara 1955-1981 Physical Education |

Doyland, Russell A.
1961-1983
Accounting
Draper, C. Dean
1960-1987
Art
Drummond, Harold G.
1970-1984
Accounting
Easton, Mary Alice
1966-1984
Counselor
Eckenrod, Gervase A.
1955-1984
Associate Dean of Instruction, Business
Division
Edgar, Alden K.
1965-1989
Secretarial Science
Edman, Leland M.
1975-1991
Administration of Justice
Eischen, Clifford 1964-1998
Business Administration, Management
Eisner, Frances D.
1966-1978
Vocational Nursing
Elgorriaga, Carmen 1970-1994
English, Spanish
Ellish, Arthur D.
1973-1999
Dean of Instruction
Emmert, Keith M.
1948-1977
Photography, Mathematics
Estrada, Gonzolo
1965-1984
English
Estrada, J oan E.
1964-1989
Accounting
Ferguson, Phillip 1972-1982
Mathematics

Fischer, Laurene J.
1965-1995
Business Administration, Information Systems

Fries, Bobby
1965-1991
Health Education, Track
Gaither, Loren F.
1964-1996
Mathematics
Gaona, Venancio Garcia
1969-1999
Spanish
Gibbs, Richard R. 1966-1994
Economics, Psychology
Gonzalez, Carlos 1970-1999 Counselor

Green, M. Fred
1962-1984
Engineering
Grover, Stanford C.
1966-1977
Counselor
Gunn, Donald L. 1971-1992
Theatre Arts, Speech
Hald, Kenneth 1949-1972
Biological Sciences
Handley, Richard
1955-1980
Associate Dean of Instruction, Occupational Education
Hanson, William F.
1946-1978
Director,
Vocational Training Center
Haroutunian, Vahack
1971-1996
Mathematics
Hendrickson, David H 1958-1984
Geography, History
Hendry, Harold T.
1966-1984
Business Administration

Hibler, Edward B.
1961-1978
Psychology
Higginbotham, Charles W.
1986-1996
Accounting, Business
Administration, Management
Hill, Jack
1956-1980
Marketing, Advertising
Hiroyasu, Shaw
1975-1996
Automotive Mechanics,
Industrial Education
Hoard, Martha L.
1964-1975
Director, Registered Nursing
Holstein, George C.
1955-1966
Dean of Admissions \& Records
J eanis, Dorothy I.
1969-1995
Business Administration,
Management
Johnston, H. Bruce
1966-1996
Biology
Keen, Derl W.
1975-2001
Child Development
Kimura, Robert H.
1963-1984
Chemistry
King, Charles G.
1958-1990
Electronic Technology,
Industrial Education
King, Joseph W.
1949-1973
Speech, Student Government
Klein, Kenneth A.
1968-1999
Architectural Drafting
Kriesel, L. Anne
1974-1990
Counseling (Enabler)
Krueger, Rodney L.
1965-1991
Art

Kuiper, H. Peter 1968-1993
Speech, English, Philosophy
Larsen, H. Dean 1954-1984 Welding, Industrial Education
Larson, Donald G. 1964-1999
History
Lasher, Ivan Ward 1971-1992 Associate Dean of Students, Admissions and Records

Latham, S. E. 1963-1983 Sociology
Leatham, Leneve S . 1959-1974
Marketing, Mathematics
Leon, Godfrey R. 1972-1990
Automotive Technology, Industrial Education

LeValley, Aina D. 1961-1972
Vocational Nursing
Leyden, Francis J. 1948-1975
Geology
Liberty, Susan
1976-1999
Director, Fine and Performing Arts, Developmental Education, Honors

Liscano, Tanya
1974-2001
Librarian
Locker, Theodore A.
1965-1990
English
Lopez, Matthew 1971-1991 Welding
Lynes, Charles M. 1970-2001
English, Speech
Marks, William A. 1959-1992
Industrial Education, Air Conditioning

| Marshall, Thomas A. 1962-1987 Psychology | Moore, J oseph J r. 1966-1999 History, Political Science |
| :---: | :---: |
| Martin, Lawrence 1957-1981 Accounting, Native American Studies | Moorehouse, Richard L. 1974-1993 <br> Director, <br> Dental Hygiene Program |
| $\begin{aligned} & \text { Martin, Merle } \\ & \text { 1950-1980 } \\ & \text { Dean of Students } \end{aligned}$ | Moran, Charles L. 1959-1989 Botany, Biology |
| Maruko, Eiji 1976-1997 Music | Moranda, Theodore N. 1965-1989 History |
| Mattox, Jack V. 1966-2001 Health Science | Morgan, Carl H. 1955-1973 Physics, Mathematics |
| McCarthy, John R. 1951-1977 Health Education | Morris, Bruce L. <br> 1961-1983 <br> Education, Mathematics |
| McCline, Robin G. 1966-1992 Building Technology, Architectural Drafting | Musick, William D. 1965-1999 Physical Education Naman, Dorothy J. |
| McCormack, Ethel | 1962-1984 <br> Biology |
| Secretarial Science, Dean, Business Division | Neal, William A. 1961-1990 |
| McCully, Clyde C. | Mathematics |
|  | Nelson, Carl C. 1966-1994 |
| McFarland, Mary H. | Biology |
| $\begin{aligned} & \text { 1965-1989 } \\ & \text { English } \end{aligned}$ | Neuman, Darlene H. 1962-2000 |
| McHenry, J ames A. 1965-2001 Biology | Business \& Technology Newcomb, Joan T. 1971-2001 |
| Meyer, Kent R. 1962-1987 Accounting | Sociology, Child Development Nielsen, Robert 1961-2001 |
| Miller, Mary E. 1960-1984 Secretarial Science | Music <br> Odahl, Albert C. 1965-1984 |
| Moller, Richard T. 1968-1990 Mathematics | Secretarial Science Ogden, Gordon L. 1975-1994 |
| Moore, Bessie M. 1971-1984 Vocational Nursing | Director, Health Sciences Okkerse, Victor J. 1959-1984 Secretarial Science |


| $\begin{aligned} & \text { Osborne, Leon } \\ & \text { 1959-1995 } \\ & \text { Art } \end{aligned}$ | Rowe, Andrew F. 1962-1990 Mathematics |
| :---: | :---: |
| Owens, Kenneth B. 1963-1999 Art | Rumley, A. William 1958-1984 History |
| Pauls, Albert N 1963-1990 Secretarial Science | Ruston, J ames R. 1967-1995 English, Speech |
| Paulson, Richard S. 1955-1984 Speech | Ryska, John W. 1965-1982 Counselor |
| Paz, Isias E. 1971-1996 Spanish, German | Sabbatini, LeRoy A. 1976-1999 <br> Automotive Collision Repair |
| Peart, Gilbert M. 1958-1977 Marketing | Sadler, Harold D. 1974-1993 <br> Business Administration |
| Perkins, Alvan E. 1964-1990 Counselor | Safer, J oseph 1963-1985 Data Processing |
| Peterson, John R. 1965-1999 Engineering, Physics | Salrin, Ralph E. 1961-1986 Accounting |
| Piper, J ames K. 1965-1999 English, Film | Sandau, Richard R. 1959-1983 English |
| Pool, June E.V. 1956-1984 Vocational Nursing | Scambray, Terry A. 1967-2001 English |
| Putnam, Marlene S . 1984-2001 Business \& Technology | $\begin{aligned} & \text { Scott, William F. } \\ & \text { 1967-1984 } \\ & \text { Geography } \end{aligned}$ |
| Rail, Lester DeWayne <br> 1971-2000 <br> Director, Arts, Honors \& Student Success | Seaberg, William 1980-1998 Associate Dean of Instruction, Learning Resources |
| 1972-2000 <br> Respiratory Care | $\begin{aligned} & \text { Shaver, Robert J. } \\ & 1955-1984 \end{aligned}$ |
| Reynolds, Jr., William A. 1957-1978 <br> French | English <br> Shine, G. Dennis Jr. 1968-1993 |
| Rios, Cruz F. 1976-1986 <br> Automotive Mechanics | Economics, <br> Business Administration Shirley, W. Delton |
| Rohrer, Martha J. <br> 1976-1981 <br> Home Economics | 1968-2001 Biology |

Shriner, E. J ane
1963-1984
Physical Education
Slaughter, Clare L.
1955-1984
Physical Education
Smith, Bernice V.
1972-1978
Librarian
Smith, Dorothy E.
1965-1978
Nursing
Smith, Shannon
1958-1980
Flight Science,
Industrial Education
Soderstrom, Paul 1948-1965
Business
Sorensen, Royal
1976-1978
Microbiology
Sosa, Luis R.
1977-1993
Sociology, Human Services
Spencer, Lowell
1948-1978
Music
Stanley, Vance
1972-1999
Physical Education
Stark, Charles M.
1966-1990
Physical Education
Statham, Yolanda A.
1964-1984
English
Stephens, Gene
1963-1984
Physical Education
Stilwell, Shirley B.
1962-1984
Physical Education
Stokle, J. Gerald
1967-1999
Associate Dean of Instruction, Social
Science Division

Stoner, LeRoy E.
1981-1999
Air Conditioning, Apprenticeship Training Coordinator
Stubblefield, Gertrude 1930-1960
Secretarial Science
Takeuchi, Leo S. 1959-1992
Associate Dean of Instruction, Technical \& Industrial Division
Teague, Jonas A. 1973-1993
Automotive Mechanics (VIC)
Templer, William F.
1975-1999
Physical Geography, Earth Science
Terry, Blair
1974-2001
Accounting
Toomasian, John
1961-1995
History
Trask, Bonnie N.
1989-1999
History
Van Gerpen, Maurice
1959-1999
Political Science

Vinicor, Donald J.
1970-1997
Chemistry
Waddle, Carl D. 1965-1997
Associate Dean of Intruction, Humanities, and Health Sciences \& the Arts
Wash, Dennis C. 1974-1996
Air Conditioning, Industrial Education
Wayte, William R.
1968-1999
Physical Education
Webster, Nancy H.
1948-1968
Business
Weinschenk, Franz A.
1954-1980
Associate Dean of Instruction, Humanities
Weidenhoefer, Hans
1948-1984
Director of Athletics,
Physical Education
Whitt, C. Thomas
1969-2001
Criminology
Wilson, Vernon L.
1976-1988
Radiologic Technology
Winter, Robert F.
1951-1990
Botany, Biology
Winters, J ames
1979-1990
Welding, Industrial Education
Woodman, J oseph B.
1948-1976
Auto Mechanics
Woodruff, J r., Elbert N.
1971-1984
English
Woods, MaryAnn
1989-1999
Medical Assisting, Health Information
Technology
Wren, Donald G.
1961-1996
Anthropology, Archaeology
Wright, Charles T.
1965-1990
Theatre Arts, Speech
Young, J oseph C.
1966-2001
Business Administration, Management
Young, Nain T.
1962-1984
Registered Nursing
Zepeda- Esparza, J osephine
1969-1995
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In Memoriam

## Tommy Angove

Program Development Assistant, CalWORKs
Harmon Allen
Aeronautics Industrial Education
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Students, Student Affairs
Chester Duckhorn
Business Administration
J ohn Graham
Physics
Kermit Gustafson
Geology
Shirley Hamilton
Secretary to the President

Alex G. Kalistratov
German, Russian
Philip S. McElroy History
Marvin F. Nunes Architecture
Dan W. Ozier Speech
Erret J. Smith
Machine Shop

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[^0]:    Scores Equivalent Units
    Exam Title Accepted FCC Course Granted
    Humanities Division
    English Comp/Lit 3, 4 or 5 Engl 1A \& 1B 7
    English Comp only 3, 4 or 5 Engl 1A 4
    French, German or 3, 4, or 5 French, German 8
    Spanish (Language part) or Spanish 3/4
    Spanish 3, 4, or 5 Spanish 5/6 6
    (Literature part)
    French 3,4 , or 5 French $3 / 4$
    (Literature part)

[^1]:    1 INTRODUCTION TO HEALTH CARE RECORDS
    3 units, 3 lecture hours, (Formerly Medical Record Technology 1)
    ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

