## Fresno City College 2004-2006 Catalog



A Public California Community College

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## INTRODUCTION

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 lifelong 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't been 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.

## 6 Academic Calendar

## ACADEMIC CALENDAR

Summer Semester 2004
Fresno City College will conduct four sessions:
(subject to change)
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 .......................... Independence Day Holiday
(Campus Closed)
August 6 $\qquad$ 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

## Fall Semester 2004

August 16
September 6
$\qquad$ Instruction begins
$\qquad$ Labor Day Holiday (Campus Closed)
October 15 ......... 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 25-26 .......... Thanksgiving Day Holidays (Campus Closed)
December 13-17 $\qquad$ Final examinations December 17 $\qquad$ End of Fall Semester 2004

December 17 $\qquad$ Last day for degree and certificate of achievement candidates to file application for December 2004 completion date
December 20-January 5 $\qquad$ Winter recess

## Spring Semester 2005

January 10 $\qquad$
January 17 $\qquad$ Martin Luther King, Jr. Day Holiday (Campus Closed)
February 18 $\qquad$ Lincoln's Day Holiday
(Campus Closed)
February 21 $\qquad$ Washington's Day Holiday
(Campus Closed)
February 28 $\qquad$ Last day for degree and certificate of achievement candidates to file application for May 2005 completion date
March 11 ........... Last day to withdraw from college or to be dropped from 18-week classes
March 21-25. $\qquad$ Spring recess
(Classes reconvene March 28)
May 16-20 $\qquad$ .Final examinations
May 20 $\qquad$ .End of Spring Semester 2005
May 20 $\qquad$ Graduation exercises

## Summer Semester 2005

Fresno City College will conduct four sessions:
(subject to change)
D 4-week summer session
D 6 -week summer session
D 8 -week summer session
D 10-week summer session
May 31 $\qquad$ Instruction begins for 4 - and 10-week classes

June $13 \ldots . . . . .$. Instruction begins for 8 -week classes June 24 $\qquad$ Final examinations and end of 4-week classes
June 27 $\qquad$ Instruction begins for 6-week classes
July 4 $\qquad$ . Independence Day Holiday (Campus Closed)
August 5 $\qquad$ .Final examinations; end of 6-, 8-, and 10 -week classes August 5 $\qquad$ Last day for degree and certificate of achievement candidates to file application for August 2005 completion date

## Fall Semester 2005

August 15 $\qquad$ Instruction begins September 5 ...... Labor Day Holiday (Campus Closed) October 14 $\qquad$ . 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 24-25 .......... Thanksgiving Day Holidays (Campus Closed) December 16 $\qquad$ . Last day for degree and certificate of achievement candidates to file application for December 2005 completion date December 12-16 $\qquad$ Final examinations
December 16 $\qquad$ End of Fall Semester 2005
December 19-January 4 $\qquad$ Winter recess

## Spring Semester 2006




Nestled in an older and bistoric Fresno neighborhood, FCC is a thriving, vibrant college campus with an enrollment of more than 22,000 students.

## Summer Semester 2006

Fresno City College will conduct four sessions:
(subject to change)
D 4-week summer session
D 6 -week summer session
D-week summer session
D 10-week summer session
May 30 $\qquad$ Instruction begins for 4- and 10-week classes June $12 \ldots . . . . .$. Instruction begins for 8 -week classes June 23.................. Final examinations and end of 4-week classes June 26......... Instruction begins for 6 -week classes July $4 \quad$ Independence Day Holiday (Campus Closed)
August 4 ............Final examinations; end of 6-, 8-, and 10 -week classes
August 4 $\qquad$ . Last day for degree and certificate of achievement candidates to file application for August 2006 completion date

## 8 Admission Requirements

# ADMISSION REQUIREMENTS 

## 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 2004 semester and ends with the Summer 2006 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

Yog koj paub txog kev kawm ntawv (Admission), thov mus cuag tau Counseling Department.

Si necesita información en español para su admisión a la universidad, favor de ponerse en contacto con el Departamento de Consejeros o la
Oficina de Admisiones y
Sección de Expedientes.
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 one transcript of work completed or attempted if high
school was attended in the last two years. Transcript is to be an official copy sent 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 a complete transcript 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.
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 one transcript 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 \$18* 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.

## Associated Student Government Representation Fee

## Student Representation Fee

A mandatory representation fee of $\$ 1$ per student per semester (excluding summer session) has been established by an election at Fresno City College in the Fall of 2001. Under the provision of California Education Code, section 76060.5 and California Administrative Code sections 5480154805 , the students established the representation fee by a two-thirds majority of students voting in the election.

## Use of Student Representation Fee

The money collected from the student fee shall be expended to provide support for students or representatives who may be stating their positions and viewpoints before city, county, and district government, and before offices and agencies of the state and federal government.

Amount or Fee: One dollar (\$1.00) per semester.
Right to Request a Waiver
The fee is mandatory; however, students have the right to request a waiver for religious, political, moral, or financial reasons. No refunds will be given once the fee is paid.

To request a waiver, the student must fill out a form available in the College Activities Office at Fresno City College and in the Business Services (Cashier) Office at Reedley College and the North Centers. A student representative fee of $\$ 1.00$ is charged each semester to all Fresno City College students. This fee will be used for student advocacy at the local, state, and national levels. For more information, contact the Associated Student Government Office, 442-8275.

## 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.

## 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.

## Associated Student Body Card

Students are encouraged to purchase an Associated Student Body membership. The membership is $\$ 5$ per semester. The ASB card entitles the student to participate in or attend all activities sponsored by the ASB. 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 ASB members and carry 12 units or more are eligible for Associated Student funded emergency loans, work programs and scholarships as available.
A refund policy for Associated Student Body memberships has been adopted by the students. This policy provides for full refund during the first week of classes and one-half 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. . 165
Nonresident Student Tuition. \$149
Plus Enrollment Fee per unit. \$18
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.

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.

## Refunds to Students

## Refund of Enrollment Fees and Tuition

Refund or reversal of enrollment fees and tuition shall be made following cancellation or withdrawal from class(es) in accordance with the following schedule.
Refund requests are subject to an audit of the student's record to verify balance. Credit balances may be 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 . $100 \%$ refund
(b)Withdrawal after the second week of the semester ..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.

- A 100 percent refund is given upon withdrawal by the 10 percent point.
- No refund is given after withdrawal beyond the 10 percent point.

Class Change(s)/Exchange(s) Primary Term-Length (Full Semester) Classes Only

Unit-for-unit tuition and enrollment fee-paid credit shall be given for class change(s)/ exchange(s) completed 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.

## Refund of Parking Fee

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-term parking permits.

## 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:
D 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
D Declare a specific educational objective within a reasonable period of enrollment
D 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

Yog koj xav paub txog kev pab cuam rau kev kawm natwv (Matriculation), thov mus cuag tau Counseling Department.

Si necesita información en español para su matriculación a la universidad comunal, favor de ponerse en contacto con el Departamento de Consejeros. 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


The Applied Technology Division trains over 4,000 future fire fighters, law enforcement and emergency medical technicians from Fresno, Madera, Kings and Tulare counties.
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, EOPS, 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 the Fresno City College Leon S. Peters Honors Program. The Honors Program Advisory Committee reviews applications, interviews candidates and recommends the students who are to be accepted into 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 25 th 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
D Three letters of recommendation, and
D Eligibility for English 1A, and

- Successful interview by the Honors Program Advisory Committee.
For details regarding the Honors Program, please refer to page 237 or 290 in this catalog or 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, ST111, 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 Military Studies Department (244-2638) at FCC or the Aerospace Studies Department (278-2593) at CSUF for information on courses offered and class meeting times.

## 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 442-8282 for dates and times.
For program details, see Developmental Education Program, pages 21 and 290, 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. A student 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

## 14 Admission Requirements

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.

## 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), advanced-intermediate (ESL 265R/265W), and advanced (ESL 67 and 68). ESL 263R, 264R, and 265R offer instruction in vocabulary and reading. ESL $263 \mathrm{~W}, 264 \mathrm{~W}$, 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 Prerequisite/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.

## Readmission

Former students of Fresno City College returning after an absence of one or more semesters must make formal application for readmission. An official transcript 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 from the previous schools to the Fresno City College Records 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 first-time, 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.


The College Activities Department at FCC provides students with a wide array of social and academic opportunities to enrich and compliment their academic experience.

## ACADEMIC REGULATIONS

## 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:

$$
\begin{aligned}
& \text { Freshman ........................ } 30 \text { or more units completed } \\
& \text { Sophomore ............ } 30 \text { units completed }
\end{aligned}
$$

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 balancing the number of academic units undertaken in view of outside


Students at FCC can acbieve and strive for success in many different fields. A few examples are; education, law, military service, medicine, performing arts and public service.
hours of work. Normally, each unit undertaken requires two hours of outside study for each hour of class lecture.

## Summer Units Allowed

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

## Grading System

Grades are earned in each course and are recorded on students' permanent records. Grades represent the evaluation of student achievement of course objectives and learning outcomes. The college uses a five-letter grading system. $A, B, C$, and $C R$ are passing grades, satisfactory or better. $D$ is a passing but less than satisfactory grade. $F$ is a failing grade. $N C$ is a less than satisfactory or failing grade; it is not a passing grade. Units of credit are earned for all passing grades $(A, B, C, D, F$, and $C R)$. Grade symbols are defined and grade points are earned for units of credit as follows:
Evaluative Grade Symbols Grade Points per Unit
$\boldsymbol{A}$ Excellent ..... 4.0
B Good ..... 3.0
C Satisfactory ..... 2.0
*D Passing, less than satisfactory ..... 1.0
$\boldsymbol{F}$ Failing .....  0.0
CR Credit ..... 0.0

NC No Credit. .0.0
(Not a passing grade, less than satisfactory or failing)
$\boldsymbol{X}$ Completion of non-credit course.............0.0
*The D grade is passing but is not considered satisfactory for meeting many of the college graduation/degree/major requirements or course prerequisite requirements. Also, the $D$ grade may not satisfy transfer requirements to four-year institutions.
In addition to the evaluative symbols listed above, non-evaluative symbols may be assigned to students' permanent records in specified conditions. No units of credit are earned for courses to which these non-evaluative symbols are assigned. The non-evaluative symbols are defined as follows:

| Non-evaluative | Symbols Grade Points per Unit |
| :---: | :---: |
| I | Incomplete.................................... 0.0 |
| W | Withdrawal..................................... 0.0 |
| MW | Military Withdrawal.......................... 0.0 |
| IP | In Progress .................................... 0.0 |
| RD | Report Delayed................................ 0.0 |

## I, Incomplete

The I, Incomplete, symbol may be assigned in a course only by approval of the course instructor if all of the following conditions are met:

- The student has completed all but the final examination or other minimal amount of course work required for a final semester grade.
- The student has a serious and verifiable reason for not completing the required course work.
- The student has a passing grade in the course at the time the incomplete, $I$, grade is assigned.
- The student requires no additional class time for completion of the course.
In assigning an incomplete, $I$, grade, an instructor will specify, on the appropriate grade report form, a list of conditions necessary for the removal of the incomplete grade, the time period allotted to the student to satisfy these conditions, and the evaluative grade symbol to be assigned if the listed conditions are not satisfied within the allotted time period.

An incomplete, $I$, grade will not affect the academic status of a student, but it will affect the progress status. An incomplete, $I$, grade must be replaced by the appropriate evaluative grade symbol no later than one full semester after it has been assigned, though an earlier limit may
be specified by the course instructor. Students may not re-enroll in a course for which they have received an incomplete, $I$, grade during the time that the incomplete, $I$, grade is in effect.

## W, Withdrawal

Withdrawal from a course or courses shall be authorized through the last day of the ninth week of instruction (or 50 percent of the course, which ever is less). The $W$ will not be used in calculating a student's grade point average, but it will be used as a factor in progress probation and dismissal procedures. A student who remains in a course beyond the withdrawal deadline must be assigned an evaluative or non-evaluative symbol other than $W$.

## MW, Military Withdrawal

The military withdrawal symbol is authorized at any time a student who is a member of an active or reserve United States military service receives orders compelling a withdrawal from courses. The MW symbol is assigned by the registrar upon verification of such orders. Military withdrawals shall not be counted in progress probation and dismissal procedures.

## IP, In Progress

$I P$ is assigned only in a course which extends beyond the normal end of an academic term. It indicates that course work is in progress and an evaluative grade symbol will be assigned when that work is completed. The $I P$ is assigned to a student's permanent record to satisfy enrollment documentation, and the appropriate evaluative grade symbol will be assigned and appear on the student's permanent record for the term in which the course is completed.

## RD, Report Delayed

The $R D$ symbol may be assigned only by the registrar and is used when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student. It is a temporary notation to be replaced by a permanent symbol as soon as possible. $R D$ shall not be used in calculating grade point averages.

## CR/NC, Credit/No Credit

Most college courses allow students the option of a final course grade of $C R$, Credit, or NC, No Credit, instead of traditional letter grades $(A, B, C, D$, or $F)$. Some courses are graded only on a Credit/No Credit basis. In courses graded only on the Credit/No Credit basis or when a student elects this grading option, the grade of

CR, Credit, will be assigned if the student has passed the course with a grade equivalent of $A, B$, or $C$, and credit will be awarded for the unit value of the course. The grade of NC, No Credit, will be assigned if the student earns the grade equivalent of $D$ or $F$, and no units of credit will be awarded for the course. Neither the $C R$, Credit, grade nor the NC, No Credit grade is included in the calculation of the grade point average at this institution.

A maximum of 15 units of credit may be earned on a Credit/No Credit grading basis in degree-applicable or transferable courses. The Credit/No Credit option is not recommended for any course in a student's major. Not all courses graded on a Credit/No Credit basis are accepted for transfer by other institutions. Students planning to transfer to another college or university should be aware of the policy of that institution regarding Credit/No Credit grades.

Students may elect the Credit/No Credit grading option in courses in which it is available by notifying the college Office of Admissions and Records, using the appropriate form, which is available at the Office of Admissions and Records, no later than the end of the fifth week of a fullterm course or within the first 30 percent of a shorter-term course. Students who have elected the Credit/No Credit grading option may reverse this decision only within these same deadlines.

Deadlines for selecting (or reversing) the Credit/No Credit grading option:
For a regular 18-week class By end of fifth week
For a 9 -week class
For an 8-week class
For a 6 -week class
For a 2 -week class By end of third week
By end of second week
By end of second week
By the third day
For a class less than two weeks At time of class registration

## Grade Point Average (GPA)

A student's 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 or other symbol of $C R, N C, W, I, I P$, or $X$ is assigned are not counted as units attempted in the calculation of a grade point average.

## 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, Counter A. Complete the form 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 19 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.

## 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 " $N C$ " are recorded reaches or exceeds fifty percent (50\%).

## Placement on Academic Probation

A student 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 cumulative 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.

## 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. A student on probation, whether academic or progress, may not carry more than 12 units without special approval of a counselor.

## Removal from Progress Probation

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

## 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.

## 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 " $W$," " $\Gamma$ " and " $N C$ " were recorded reached or exceeded fifty percent (50\%).
or
2. A student 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.

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 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 GPA and complete more than $50 \%$ of their units until their cumulative GPA and 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 Committee for 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 only once. Students who wish to repeat courses more than two times in order to earn grades better than D, F, or NC 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 through the Office of Admissions and Records for the alleviation of the substandard grade.

If a student who has earned a grade of $\mathrm{D}, \mathrm{F}$ 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 [or Reedley College] transcript showing the renewed course grade be sent to the college where the substandard grade was earned and petition for academic renewal (may be called by other names, e.g., grade forgiveness) at the other college. Be advised, some colleges require repetition of classes for grade change be done on their campus only. 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 each of 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 within the district).
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 GPA or 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 CR, 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 by 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. 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. 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.

## 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 on page 237 or 290 or consult with the Honors Program Director, by calling 442-8207.

## Work Experience

Work experience and field work credit may be earned in some designated courses. Refer to page 291 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 course credit by examination, a student must be enrolled at the college, have completed 12 units and be in good standing during the semester in which he/she applies for credit by examination. The student must be enrolled in at least one course in addition to the course to be challenged for credit by examination. Credit by examination 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 taken by exam is a prerequisite. Credit by examination is not allowed during the summer session. The college reserves the right to deny a credit by examination to any student.

Only certain courses listed in the current catalog may be challenged for credit by examination. The faculty of each department determine which department courses may or may not be challenged for credit by examination. See the appropriate department chair or associate dean to learn which courses may be taken credit by examination and to ascertain the proper procedure for credit by examination.

A student 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 a full time instructor, the department chair, and the appropriate associate dean of instruction must be filed with the Admissions and Records Office no later than the end of the sixth week of the semester.

An appropriate fee for the expense of this special service is charged for each course challenged and is payable by the end of the ninth week of the semester. Students must make arrangements with the instructor to take the examination prior to the fifteenth week of the semester.

The letter grade (A-F) earned on the examination will be awarded at the time grades are submitted to Admissions and Records by the instructor giving the examination and will be entered on the student's transcript in a manner which clearly indicates that the course grade and credit were earned by examination. A student who fails the examination may not attempt the course again by examination.

## 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:

Scores Equivalent Units Exam Title $\quad \begin{aligned} \text { Scores } & \text { Equivalent }\end{aligned}$

## 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 $\quad 3,4$, or 5 Spanish 5/6 6
(Literature part)
French 3, 4, or 5 French 3/4 8
(Literature part)
Music 3, 4 or 5 Music 12 or 133
Music Theory 3, 4 or 5 Music 1A 3

Mathematics, Science and Engineering Division

| Biology | 3,4 or 5 | Biology 1 | 4 |
| :--- | ---: | :--- | ---: |
| Chemistry | 3,4 or 5 | Chemistry 1A | 5 |
| Calculus AB | 3,4 or 5 | Math 5A | 4 |
| Calculus BC | 3,4 or 5 | Math 5B | 4 |
| Physics B | 3 | Physics 2A | 4 |
| Physics B | 4 or 5 | Physics 2A-B | 8 |
| Physics C | 3 | Physics 4A | 4 |
| Physics C | 4 or 5 | Physics 4A-B | 8 |

Social Science Division
American History $\quad 3,4$ or 5 History 11-12 6
European History 3,4 or 5 History 2
Macroeconomics 3,4, or 5 Economics 1A 3
Microeconomics 3,4, or 5 Economics 1B 3
Psychology 3, 4, or 5 Psychology 23
Note: AP credit in American Government does meet the U.S. Constitution requirement for teaching credential candidates (Ed. Code Sec. 13132). However, it does NOT satisfy the requirements of Political Science 2 because it does not address state and local requirements (Ed. Code Sec. 40404). Candidates seeking a BA at a California State University must satisfy national, state and local government requirements. The requirements at the University of California vary by campus.

## College-Level Examination Program (CLEP)

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.

| Exam Title | Minimum <br> Score | Equivalent <br> FCC Course | Units <br> Granted |
| :--- | ---: | :--- | ---: |
| Business Division |  |  |  |
| Prin of Financial Acctg | 50 | Acctg 4A | 4 |
| Business Law | 50 | BA 18 | 4 |
| Intro to Business Concepts | 50 | BA 10 | 3 |
| Computer Concepts | 50 | IS 15 | 3 |
| Prin of Bank Operations | 50 | BA 36 | 3 |
| Humanities Division |  |  |  |
| American Literature | 50 | Engl 48A \& B | 6 |
| College Composition | 50 | Engl 1A | 3 |
| Engl Comp (General) | 500 | Engl 125 | 3 |
| $\quad$ (1978 through April 1986$)$ |  |  |  |
| Engl Comp (General) | 390 | Engl 125 | 3 |
| $\quad$ (after May 1986 or before 1978) |  |  |  |
| Engl Comp w/Essay | $* 600$ | None |  |
| English Literature | 50 | Engl 46AB | 6 |
| Humanities (General) | 500 | Engl 45 \& Art 6 | 6 |

Mathematics, Science and Engineering Division

| Calculus w/Anal Geom | 50 | Math 12 | 5 |
| :--- | ---: | :--- | :--- |
| College Algebra-Trig | 50 | Math 44 | 5 |
| Mathematics (General) | 500 | Math 101 | 3 |
| Trigonometry | 50 | Math 4A | 3 |
| Microbiology | 50 | Biol 31 | 4 |
| Biology | 50 | Biol 1 | 4 |
| Natural Sciences (Gen) | 500 | Natural Science | 6 |

Social Science Division

| Afro-American History | 50 | Afr-Am St 1 |
| :--- | ---: | :--- |
| American Government ** | 50 | None |
| American History I | 50 | Hist 11 |
| American History II | 50 | Hist 12 |
| Macroeconomics, Intro | 50 | Econ 1A |
| Microeconomics, Intro | 50 | Econ 1B |
| Sociology | 50 | Soc 1A |
| Psychology, General | 50 | Psy 2 |
| Western Civilization I | 50 | Hist 1 |
| Western Civilization II | 50 | Hist 2 |
| Soc Sci \& Hist (Gen.) | 500 | Soc Sci |
|  |  | (Elective) |

*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 cumulative 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 Honors Program office in LI-134 or phone 442-8207.

## 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-134 or phone 442-8207, or call Advisor Rosemarie Spight Guglielmino at 442-4600, extension 8117.

## Leon S. Peters 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.

* 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 are available by request and mailed to the student's address on file with the college.

## Certifications of Enrollment

Certifications of enrollment shall be requested in writing at the Admissions and Records Office. A minimum of three working days for the preparation of certifications is required. Certifications will not be provided if the student has a "bold" on the permanent file.


The Leon S. Peters Honors Program at FCC is nationally recognized and places students at UC and CSU campuses and also many prestigious universities throughout the country.

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. $\qquad$ .. 9 to 11.5 units
Half-time $\qquad$ .. 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 $\$ 5$. Payment must be received before the request will be processed. 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 "bold" 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


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.fresnocitycollege.edu.
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 have a 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 " $N C$ " 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.

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.


The FCC Veterans Peace Memorial is a special place on the campus that honors American soldiers in all branches of the military. Each year several tributes and memorials are conducted to pay honor to those veterans who have served in the armed forces.

## GRADUATION REQUIREMENTS

## General Education <br> (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.
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:

D 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 144, for a list of credit, nondegree applicable and noncredit courses.

## Catalog Rights

A student may elect to meet the requirements for the associate degree from:

1. The catalog in effect at the time of the student's graduation, or
2. The catalog in effect at the time the student began continuous enrollment leading to graduation.

For this regulation, a student shall be considered to have continuous enrollment if enrolled and active in any graded class at the census point $(20 \%)$ of the semester. If a student misses two consecutive calendar years, they lose their original catalog rights and are not continuously enrolled.

## 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 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

A student may gain more than one AA and/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 well-defined 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 one-third. Grade point average references assume the following relationship of letter grades to grade points for each unit of credit:

| A | ints |
| :---: | :---: |
| B | 3 grade points |
| C | 2 grade points |
| D* | ...... 1 grade point |
| F | 0 grade point |

*D = passing, less than satisfactory. The " $D$ " grade is passing but is not considered satisfactory for meeting the graduation
requirements in Matb, Reading, Writing, Speech and Computer Literacy. In addition, the "D" grade ispassing 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.
2. Residence requirements:
(a) A minimum of twelve (12) units in residence at district colleges or centers, with attendance during the last semester prior to graduation, or
(b) A total of forty-five (45) units in residence at district colleges or centers if not in attendance during the last semester prior to graduation.


Commencement ceremonies for degree candidates are held at the end of the spring semester each year.
3. At least twenty (20) units in a discipline (major) or from related disciplines with a grade point average of 2.0 , "C" or better. Some majors require a 2.0 , " C ," grade or better for each course. (See specific major requirements.)
4. Competence in writing, demonstrated by completion of either English 125 or 153 or English 1A, 1AH or ESL 67 or AT 31 with a grade of 2.0 , " C ," or better.
(The course used to fulfill this requirement may also be used to fulfill area D, Part 1, below, of the general education requirement in language and rationality: composition.)
Students who complete English 125 and/or English 153 and/or English 126 may apply no more than 3 units earned in these courses to the associate degree.
5. Competence in reading, demonstrated by
(a) Meeting the reading requirement for English 1A, 1AH eligibility by an appropriate placement test score or
(b) Completion of English 1A, 1AH, 126 or ESL 68 with a grade of 2.0, "C," or better.
Students who complete English 125 and English 126 may apply no more than 3 units earned in these courses to the associate degree.
6. Competence in oral communication, demonstrated by the completion of Speech $1,2,4,8$, or 25 with a grade of 2.0, " C ," or better.
7. Competence in mathematics, demonstrated by
(a) An appropriate placement test score or
(b) Completion with a grade of 2.0 , " C ," or better one of the following classes: Math $4 \mathrm{~A}, 4 \mathrm{~B}, 5 \mathrm{~A}, 5 \mathrm{~B}$, $6,7,10 \mathrm{~A}, 10 \mathrm{~B}, 11,21,26,42,45,101,102,103$, Decision Science 117, Applied Technology 130, or Drafting 160 .
8. Familiarity with computer concepts and computer use, demonstrated by completing with a grade of " $C$ " (2.0) or better one of the following:
(a) 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 ; Information Systems 12, 14, 15, 18, or 26;
(b) A course in the student's major that has been designated by the division of that major as meeting the computer literacy requirement; or
(c) A college examination of computer literacy.
9. Awareness of lifetime physical and mental wellness, demonstrated by completion of Health 1, Psychology

2, Psychology 2H, Psychology 33, Psychology 163 or Child Development 38/Psychology 38.
10. Two physical education and/or dance classes. Exceptions will be considered for those students who are veterans with at least one year of active military service, 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, $22,24,29 \mathrm{~A}, 30 \mathrm{~A}, 31 \mathrm{~A}, 32 \mathrm{~A}, 33 \mathrm{~A}, 34 \mathrm{~A}, 36 \mathrm{~A}, 37 \mathrm{~A}, 38 \mathrm{~A}$, 39A, 40A, and 41A.
11. Completion of one of the following courses on the principles of national, state, and local government, including the study of American institutions and ideals: Political Science 2 or 10.
(The course used to fulfill this requirement may also be used to satisfy area B, Part 1, below, of the general education requirement in social and behavioral sciences.)
12. A minimum of eighteen (18) units in general education, including at least three (3) units in each of areas (A) and (C), and at least three (3) units in both parts 1 and 2 of areas (B) and (D).
A. Natural Sciences (3 units)

Applied Technology 120
Astronomy 10
Biology 1/1H, 3, 5, 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. Political Science 2 or 10
(The course used to fulfill this requirement may also be used to satisfy degree requirement 11, American institutions, above.)
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, 21, 29, 30, 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, $16,17,18,19,20,21,22,24,35,39 \mathrm{~B}, 40 \mathrm{~B}$, 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, $27,28,29,30,32,34,35,36,39,40,41,42 \mathrm{~A}$, 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. Composition
(The course used to fulfill this general education area requirement may also be used to satisfy degree requirement 4, competence in writing, above.)

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 $10 / 10 \mathrm{H}$
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. Accounting for Small Businesses
B. Business Accounting and Finance
C. Computerized Accounting
D. Full-Charge Bookkeeper
E. Junior Accountant
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 and Drug Abuse 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
A. Business Law
B. Entrepreneurial Ventures
C. Human Resource Management and Assistant
10. Business and Technology
A. Administrative Assistant
B. Business Office Assistant
C. Clerical
D. Computer Applications Software
E. Legal Administrative Assistant
F. Medical Administrative Assistant
G. Medical Billing Assistant
H. Medical Billing Clerk
I. Medical Receptionist
J. Medical Transcriptionist
K. Microsoft Word
L. Office Professional
11. Business Management
A. Business Finance and Accounting
B. Business Finance and Investment
C. Human Relations and Communications
D. Human Resources and Relations
E. Management and Supervision
F. Personal Finance and Investments
G. Small Business Management
12. Career \& Technology Center Programs
A. Automotive Mechanics, Engine Repair
B. Automotive Mechanics, Engine Performance
C. Automotive Mechanics, Brakes, Suspension and Steering
D. Auto Collision Repair
E. Building Maintenance
F. Clerical Training, Fund of Literacy
G. Electronic Tech, Computer Technician
H. Industrial Training, Warehouse and Distribution Careers
I. Maintenance Mechanic, Welding and Machine Shop
J. Maintenance Mechanic, Hydraulics and Pneumatics
K. Maintenance Mechanic, Electrical Fundamentals
13. Child Development
A. Child Development Associate Teacher
B. Family Child Care
C. Foster Care
14. Correctional Science
15. Culinary Arts
A. Advanced
B. Basic
C. Intermediate
16. Dietary Aide
17. Educational Aide (Special Education)
18. Electrical Systems Technology
A. CISCO Certification
B. CISCO CCNP Preparation
C. Industrial Control Systems
19. Fire Technology
A. Basic Fire Academy
B. Emergency Medical Technician 1
C. Emergency Medical Technician 1/Refresher
20. Graphic Communications, Web Design
21. Information Systems
A. MCSE Core
B. Microsoft Access 2000
C. Microsoft Excel 2000
D. Microsoft Office 2000
E. System Support Specialist
F. Web Page Development

## 22. Marketing

A. Advertising
B. Personal Sales
C. Retailing

## 23. Paralegal, Legal Assistant-Clerk

24. Professional Photography
A. Commercial Photography
B. Digital Photography
C. Fine Art Photography
D. Photojournalism

## 25. School to Work

26. Students Understanding College, Careers, Employment, Support, and Success
27. Teacher Aide (General)

## 28. Work Assessment 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 29 .
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 31),
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

## Associate in Arts Degree

The purpose of this program is to allow students 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 29.
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 31),
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. of the 20 units in the major, there will be no more than 10 units from any one discipline.
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 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 specific college or university which they 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 associ-
ate 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 37 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 39. 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.

$$
\begin{aligned}
& \text { Students } \\
& \text { should consult } \\
& \text { the catalog of } \\
& \text { the specific } \\
& \text { college } \\
& \text { or university } \\
& \text { which they plan } \\
& \text { to attend. }
\end{aligned}
$$

## 36 Transfer Requirements

## 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 bave 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.
D Area A1, Oral Communication
Speech 1, 2, 4, 8
D Area A2, Written Communication
English $1 \mathrm{~A} / 1 \mathrm{AH}$
D Area A3, Critical Thinking
Criminology 13
English 3/3H
Philosophy 4, 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).

D Area B1, Physical Science
Astronomy 10
Chemistry 1A, 3A, 3B, 28A, 28B
Geography 1, 7, 8
Geology 1/1H, 2
Physical Science 11
Physics 2A, 2B, 4A
D Area B2, Life Science
Biology 1/1H, 3, 4, 5, 6, 7, 20, 24, 31

D Area B3, Laboratory Activity
Chemistry 29A, 29B
D Area B4, Mathematics/Quantitative Reasoning Computer Science 20, 40, 41
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 and Foreign Languages <br> Select a minimum of nine semester units, with at least one course from each of the following two areas:

D 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, 55, 65

Chicano-Latino Studies $+17,20,+27$
Dance $+17,20 \mathrm{~A},+27,30$
Film 1, 2A, 2B
Music 3, 12, 13, 14, 16, 20, 21, 24, 25, 27, 28, 30, 39, 40, 46

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.
D Area C2, Humanities
African-American Studies 17, 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, 5
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:
D Area D1, Anthropology and Archaeology Anthropology 2/2H, 3
D Area D2, Economics
Economics 1A/1AH, 1B/1BH

- 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
D Area D5, Geography
Geography 2, 4A, 4B
D Area D6, History
History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 11,12,15$
D 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
D Area D9, Psychology
Psychology/Child Development 39
D Area D10, Sociology and Criminology Sociology 1A, 32

## Area E: Lifelong Understanding and 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, 32, 34, 51, 52, 53, 54, 55, 56, 70, 71, 72, 73
Aerospace Studies 1A, 1B, 2A, 2B, 3, 5
African-American Studies 1, 2, 3, 4, 5, 6, 8, 13, 15, 17, 21, 22, 36, 41, 42, 49


Unique learning opportunities are available for students that include; internships, work experience and volunteer service programs.

## 38 Transfer Requirements

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, 6, 7, 13, 14, 19, 20, 27, 28, 29, 30
Applied Technology 10, 11, 21, 31, 40
Apprenticeship 19
Architecture 10, 11, 12, 20, 21, 22, 24, 30, 31, 32, 34, $40,41 \mathrm{~A}, 42,44$
Armenian 1, 2, 3
Art 2, 3, 4, 5/5H, 6/6H, 7, 8, 9, 10, 11, 12A, 12B, 13, 14, $15,16,17,18,19,20,21,22 \mathrm{~A}, 22 \mathrm{~B}, 23,24 \mathrm{~A}, 24 \mathrm{~B}$, $24 \mathrm{C}, 24 \mathrm{D}, 25,27,28,29,32 \mathrm{~A}, 32 \mathrm{~B}, 35,39 \mathrm{~B}, 40 \mathrm{~B}, 45$, 49, 55, 65
Asian-American Studies 1, 10, 15, 20, 25, 30
Astronomy 10
Automotive Collision Repair Technology 51, 51A, 51B, 53, 53A, 53B, 55
Automotive Technology 9, 19, 51, 51L, 52, 53, 54, 55, $56,57,58,58 \mathrm{~A}, 58 \mathrm{~B}, 58 \mathrm{C}$
Automotive Technology General Motors ASEP 51, 51L, 52, 53, 54, 55, 56, 57
Biology 1/1H, 3, 4, 5, 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, $18,19,20,21,22,25,27,28,30,31,32,33,34,35$, $38,40,43,44,48,50,51,52$
Business \& Technology $1,2,3,4,5,7,8,9,10,11,13$, $14,18,19,20,21,24,25,26,27,28,29,30,43$
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, $12,13,14,15,18 \mathrm{~A}, 18 \mathrm{~B}, 19,30,31,34,37 \mathrm{~A}, 37 \mathrm{~B}, 38$, $39,40 \mathrm{~A}, 40 \mathrm{~B}, 42,43,44,45,46,47,48$
Chinese 1, 2
Computer Aided Drafting and Design 14, 22, 24, 26, 32, 36, 40, 42
Computer Aided Manufacturing 10, 20, 30, 40, 50
Computer Science 10, 20, 26, 30, 40, 40J, 41
Construction 19, 50A, 50B, 51, 51A, 51B, 53, 53A, 53B, 55, 56, 57
Criminology $1,3,4,5,6,7,8,9,11,12,12 \mathrm{~A}, 13,15$, $16,18,19,20,21,23,24,25,36$

Cultural Studies $7 / 7 \mathrm{H}, 10,11,40$
Dance 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20A, 20B, 21, 22, 23, 24, 25, 26, 27, 30
Decision Science 21, 23
Dental Hygiene 1A, 1B, 1C, 1D, 2, 3A, 3B, 4, 5A, 5B, 5C, $6 \mathrm{~A}, 6 \mathrm{~B}, 7 \mathrm{~A}, 7 \mathrm{~B}, 8 \mathrm{~A}, 8 \mathrm{~B}, 9,10,11,12,13,14$
Drafting 12, 19
eCommerce 2
Economics 1A/1AH, 1B/1BH
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 1A/1AH, 1B/1BH, 3/3H, 4, 6, 12, 14, 15A, 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 $1,2,4 \mathrm{~A}, 4 \mathrm{~B}, 7,8,10$
Geology 1, 2
German 1, 2, 3, 4
Graphic Communications 5, 10, 12, 13, 14, 15, 16, 17, $18,19,20,21,22,23,24,25,26,27,30,39 \mathrm{~A}, 40 \mathrm{~A}$, 41, 54, 59, 62
Guidance Studies 11, 38, 41, 43, 44, 45, 46, 47A, 47B, 48, 49, 53, 54
Health Information Technology 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19
Health Science 1, 2,
History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 3,11,12,15,17,18,20,21,29$, 30, 34
Hmong 1, 2
Home Economics 1, 7, 19, 20, 24, 26
Honors 1, 1A, 1B, 1C, 1D, 1E, 1F, 1G
Human Services 2, 5, 7, 10, 18, 19A, 19B, 20, 24, 25, $30,35,38,40,42,43,44$
Humanities $7 / 7 \mathrm{H}, 10,11$
Individual Study 49

Information Systems 12, 14, 15, 17, 18, 19, 20, 22, 23,
$24,25,26,27,28,30 \mathrm{~A}, 30 \mathrm{~B}, 30 \mathrm{C}, 30 \mathrm{D}, 30 \mathrm{E}, 30 \mathrm{~F}, 30 \mathrm{G}$,
$32,33,34,36,37,40,41,46,47,49,74$
Japanese 1, 2
Journalism 1, 2, 3, 5, 6, 10, 19
Library Skills 1
Library Technology 19, 51, 52, 54, 55, 56, 57, 60
Linguistics 4, 10, 11
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, 48A, 48B, 48C
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, 10A, 10B,
$12,13,14,16,18,20,21,22,23,24,25,26,27,28$,
$29,30,32,34,35,36,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}$,
$46,47,48,49,57,58,59,60,61,63,64,66,67,68$, $69,70,71,72,73 \mathrm{~A}, 73 \mathrm{~B}, 73 \mathrm{C}, 73 \mathrm{D}, 74 \mathrm{~A}, 74 \mathrm{~B}, 74 \mathrm{C}$, $74 \mathrm{D}, 75,76,77,78$
Nursing 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, $15,19,21,23,25,50$
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, 4, 5, 6
Photography 5, 10, 12, 15, 19, 20, 22, 23, 25, 30, 33, 35, 40, 45
Physical Education 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, $14,15 \mathrm{~A}, 15 \mathrm{~B}, 15 \mathrm{C}, 17,20,21,22,23,24,25,29 \mathrm{~A}$, $29 \mathrm{~B}, 29 \mathrm{C}, 30 \mathrm{~A}, 30 \mathrm{~B}, 30 \mathrm{C}, 31 \mathrm{~A}, 31 \mathrm{~B}, 31 \mathrm{C}, 32 \mathrm{~A}, 32 \mathrm{~B}$, $32 \mathrm{C}, 33 \mathrm{~A}, 33 \mathrm{~B}, 33 \mathrm{C}, 34 \mathrm{~A}, 34 \mathrm{~B}, 34 \mathrm{C}, 35 \mathrm{~B}, 36 \mathrm{~A}, 36 \mathrm{~B}$, $36 \mathrm{C}, 37 \mathrm{~A}, 37 \mathrm{~B}, 37 \mathrm{C}, 38 \mathrm{~A}, 38 \mathrm{~B}, 38 \mathrm{C}, 39 \mathrm{~A}, 39 \mathrm{~B}, 39 \mathrm{C}$, $40 \mathrm{~A}, 40 \mathrm{~B}, 40 \mathrm{C}, 41 \mathrm{~A}, 41 \mathrm{~B}, 41 \mathrm{C}, 50,51,52,53,54,55$
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, $3 \mathrm{~B}, 4 \mathrm{~A}, 4 \mathrm{~B}, 4 \mathrm{C}, 5 \mathrm{~A}, 5 \mathrm{~B}, 5 \mathrm{C}, 6$
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, 2, 4, 8, 12, 20, 25, 26
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, 2A, 2B, 3A, 3B, 4A, 4B, 19, 56
Women's Studies 5, 7, 10, 24, 25, 30, 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 *1A, *1B, *2A, *2B, 3
*Any or all of these courses combined with Military Science 1, 2, 11, 12, 50A, 50B: maximum credit, 8 units.
African-American Studies $1,2,3,4,5,6,13,15,17$, 21, 22, 36, 41, 42, 49
American Indian Studies 31, 32, 34, 35
American Sign Language 1, 2, 3, 4
American Studies 10
Anthropology 1, *2, *2H, 3, 13, 14, 20, 28
*2 and $2 H$ combined: maximum credit, 1 course.
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,
$16,17,18,19,20,21,23,24,24 \mathrm{~A}, 24 \mathrm{~B}, 24 \mathrm{C}, 24 \mathrm{D}, 25$,
27, 29, 34, 35, 55, 65
*5 and 5H combined: maximum credit, 1 course.
+6 and $6 H$ combined: maximum credit, 1 course.
Asian-American Studies 1, 10, 15, 20, 25
Astronomy 10
Biology +1, +1H, *3, 4, 5, 6, 7, 20, 22, 31
+1 and 1 H combined: maximum credit, 1 course.
*No credit for 3 if taken after 1.

## 40 Transfer Requirements

Business Administration ${ }^{\circ} 10,{ }^{\circ} 10 \mathrm{H}, * 18,+20$, *21
*18 and 21 combined: maximum credit, 1 course
+20 and Political Science 20 combined: maximum credit, 1 course.
${ }^{\circ} 10$ and 10H combined: maximum credit, 1 course.
Chemistry *1A, 1B, *3A, ${ }^{\circ} 8 \mathrm{~A},{ }^{\circ} 28 \mathrm{~A}, 28 \mathrm{~B}, 29 \mathrm{~A}, 29 \mathrm{~B}$
*1A and $3 A$ combined: maximum credit, 1 course.
${ }^{\circ} 8 A$ 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 11
Dance 10, 11, 12, 13, 14, 15, 16, 17, 18, 20A, 20B, 21, 22, 23, 25, 27, 30, 42
Decision Science 21, +23
+23 combined with Math 11/42 and Psychology 42: maximum credit, 1 course.
Economics *1A, *1AH, 1B
*1A and 1AH combined: maximum credit, 1 course.
Engineering 1A, 1B, 2, 4, 6, 8, 10
English *1A, *1AH, +1B $,+1 \mathrm{BH},{ }^{\circ} 3,{ }^{\circ} 3 \mathrm{H}, 4,12,14$, 15A, 15B, 15C, 15D, 40, 42, 44A, 44B, 45, 46A, 46B, 48A, 48B
*1A and 1AH combined: maximum credit, 1 course.
$+1 B$ and 1BH combined: maximum credit, 1 course.
${ }^{\circ} 3$ and $3 H$ combined: maximum credit, 1 course.
Fashion Merchandising 20
Film 1, 2A, 2B
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 * $1, * 1 \mathrm{H},+2,+2 \mathrm{H}, 3,11,12,15,17,18,20,21$, 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, 49 *12 and 15 combined: maximum credit, 1 course.
Japanese 1, 2
Journalism 1
Linguistics 4, 10
Management *10, *10H
*10 and 10H combined: maximum credit, 1 course. 10 and 10H combined with Business Administration 10/10H: maximum credit, 1 course.
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
*Any or all of these courses combined with Aerospace
Studies 1A, 1B, 2A, 2B, 3: maximum credit, 8 units.
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 1A.
Philosophy *1A, *1AH, 1B, 1C, 1D, 4, 5, 6
*1A and 1 1AH combined: maximum credit, 1 course.
Photography 5, 10, 15
Physical Education *3-17, 20, 22, 23, +24, 25, +30A$34 \mathrm{~A}, 36 \mathrm{~A}-41 \mathrm{~A}$
*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 *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 $4 A, 4 B, 4 C$ : 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, 4,+4NS, 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 $12,24,25,26,27,28,30,31,32,33,35$, 36, *41, * $42,43,44$
*41 and 42 combined: maximum credit, 1 course.
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 " $A-F$ " 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 Intersegmental 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/**3H, 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 3

## African-American St 15, African-American

Music from 1940 to Present3

American Indian St 35, American Indian
Art.
Art 2, Art Appreciation ....................................... 3

## 42 Transfer Requirements

Art5/**5H, Art History 1 ..... 3
Art 6/**6H, Art History 2 ..... 3
Art 55, Intro to Asian Art. ..... 3
Art 65, Intro to Pacific Art. ..... 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 ..... 3
B. Humanities
African-American St 17, African-American Literature ..... 3
American Sign Language 3, 4,
Intermediate American Sign Language ..... 4-4
Armenian 3, Intermediate Armenian ..... 3
Chicano-Latino St 21, Chicano Literature ..... 3
English $1 \mathrm{~B} / * * 1 \mathrm{BH}$, 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 to Present ..... 3
English 48A, Intro to American Literature to World War I ..... 3
English 48B, Intro to American Literature from
World War I to the Present ..... 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 $1 / * * 1 H$, Western Civilization .....  3
History $2 / * * 2 H$, 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
Philosophy 5, Philosophy of Religion .....  3
Russian 3, 4, Intermediate Russian. ..... 4-4
Spanish 3, 4, Intermediate Spanish ..... 4-4
Spanish 3NS, 4 NS, Spanish for Spanish Speakers ..... 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 Anthropology3
Anthropology 3, Intro to Archaeology and Pre-History ..... 3
B. Economics $1 \mathrm{~A} / * * 1 A H$, Prin of Macroeconomics. ..... 3
Economics 1B/**1BH, Prin of Microeconomics .....  3
C. African-American St 1, African-American Culture ..... 3
African-American St 4, African Civilization ..... 3
American Indian St 31, American Indian Culture ..... 3
American Indian St 34, American Indian in Contemporary Society. ..... 3
Chicano-Latino St 11, Intro to Chicano-Latino
Studies3
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 a Multicultural Society. .....  3
H. Political Science 5, Comparative Government. .....  3
I. Psychology $2 / * * 2 H$, General Psychology ..... 3
Psychology 38 or Child Development 38, Lifespan Development ..... 3
Psychology 39 or Child Development 39,
Child Development ..... 3
J. Sociology 1A, Intro to Sociology . ..... 3
Area 5 - Physical and Biological Sciences
At least two courses, one biological science and one
physical science. One four-unit course must have 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 ..... 4
** Chemistry 8A, Elementary OrganicChemistry (no lab).3
** Chemistry 28A/29A, Organic Chemistry and 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 ..... 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 Anatomy. ..... 4
Biology 22, Human Physiology. ..... 5
Biology 31, Microbiology ..... 4
Area 6 - UC Requirement in Language
Other 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, butcan 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 college-level 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 $U C$.
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 Califorria campuses listed. It either will not be accepted or contains more courses than are required. Use the GE-Breadth 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.

## 44 Transfer Requirements

## U.C. Berkeley <br> College of Chemistry <br> College of Engineering <br> College of Environmental Design <br> College of Natural Resources - <br> No breadth requirements, take major <br> prerequisites. <br> Haas School of Business <br> 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: CAN ECON 2 on one campus will be acceptable for CAN ECON 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:

CRIM 1, Intro to Criminology
CRIM 6, California Criminal Law
CRIM 3, Legal Aspects of Evidence
CRIM 8, Criminal Investigation
ANTHRO 1, Physical Anthropology
ANTHRO 2, Cultural Anthropology
ART 5 or 5H, Art History 1
ART 6 or 6 H , Art History 2
ART 10, Beginning Ceramics
ART 7, Beginning Drawing
ART 9, Beginning Painting: Oil/Acrylic
ART 11, Beginning Sculpture
ART 3, Two-Dimensional Design
ART 4, Three-Dimensional Design

ART 18 PHOTO 10, Basic Black \& White Photography
ART 20 ART 14, Beginning Printmaking
ART 22 ART 35, Color Theory
ART 24 ART 8, Beginning Life Drawing \& Anatomy
ART SEQ A ART 5+6, Art History $1 \& 2$
BIOL $2 \quad$ BIOL 1 or 1 H , 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 $1 \mathrm{~A}+1 \mathrm{~B}$, 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, Intermediate 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+1B, 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 $8 \quad$ FN 1, Principles of Food Preparation
FCS 10 HEC 24, Beginning Sewing
FCS 12 SOC 32, Courtship, Marriage and Divorce: Family and Interpersonal Relationships CHDEV 39, Child Development
FCS 14
FREN 2
FREN 4 FRENCH 2, High-Beginning French


The Learning Communities Program at FCC provides students with a new way of learning and interacting with each other and their instructors. Specific themes and assignments are given to students by instructors to promote active learning in the classroom.

## 46 Transfer Requirements

| FREN SEQ A | FRENCH 1+2, Beginning/High- <br> Beginning French | MATH SEQ C | Math $5 \mathrm{~A}+5 \mathrm{~B}+6$, Mathematical Analysis I/II/III |
| :---: | :---: | :---: | :---: |
| FREN SEQ B | French $3+4$, Intermediate/ | MUS 10 | MUS 12, Music Appreciation |
|  | High-Intermediate French | PHIL 2 | PHIL 1A or 1AH, Theories of Knowledge, |
| GEOG 2 | GEOG 1, Physical Geography |  | Existence \& Beauty |
| GE0G 4 | GEOG 2, Cultural Geography | PHIL 4 | PHIL 1C, Ethics |
| GEOL 2 | GEOL 1, Physical Geology | PHYS 4 | PHYS 2B, General Physics 2 |
| GEOL 4 | GEOL 2, Historical Geology | PHYS 8 | PHYS 4A, Physics for Scientists and |
| GERM 2 | GERMAN 1, Beginning German |  | Engineers |
| GERM 4 | GERMAN 2, High-Beginning German | PHYS 12 | PHYS 4B, Physics for Scientists and |
| GERM 8 | GERMAN 3, Intermediate German |  | Engineers |
| GERM 10 | GERMAN 4, High-Intermediate German | PHYS 14 | PHYS 4C, Physics for Scientists and |
| GERM SEQ A | GERMAN 1+2, Beginning/High- |  | Engineers |
|  | Beginning German | PHYS SEQ A | PHYS 2A+2B, General Physics 1/2 |
| GERM SEQ B | GERMAN 3+4, Intermediate/HighIntermediate German | PHYS SEQ B | PHYS $4 \mathrm{~A}+4 \mathrm{~B}+4 \mathrm{C}$, Physics for Scientists and Engineers |
| GOVT 2 | POLSCI 2, American Government | PSY 6 | PSY 42, Statistics for the Behavorial |
| HIST 2 | HIST 1 or 1H, Western Civilization to |  | Sciences |
|  | 1648 | PSY 10 | PSY 36, Intro to Psychophysiology |
| HIST 4 | HIST 2 or 2H, Western Civilization | REC 2 | REC 20, Introduction to Recreation |
|  | Since 1648 | REC 4 | REC 21, Recreation Leadership |
| HIST 8 | HIST 11, History of the U.S. to 1865 | RUSS 2 | RUSS 1, Beginning Russian |
| HIST 10 | HIST 12, History of the U.S. Since 1865 | RUSS 4 | RUSS 2, High-Beginning Russian |
| HIST SEQ A | HIST 1+2, Western Civilization | RUSS 8 | RUSS 3, Intermediate Russian |
| HIST SEQ B | HIST 11+12, History of the U.S. | RUSS 10 | RUSS 4, High-Intermediate Russian |
| JAPN 2 | JAPAN 1, Beginning Japanese | RUSS SEQ A | RUSS 1+2, Beginning/High-Beginning |
| JAPN 4 | JAPAN 2, High-Beginning Japanese |  | Russian |
| JAPN SEQ A | JAPAN 1+2, Beginning/High-Beginning Japanese | RUSS SEQ B | RUSS 3+4, Intermediate/HighIntermediate Russian |
| JOUR 2 | JOURN 3, Newswriting | SOC 2 | SOC 1A, Intro to Sociology |
| JOUR 4 | JOURN 1, Intro to Mass Communication | SOC 4 | SOC 1B, Problems of Society |
| KINE/PE 2 | PE 22, Introduction to Physical | SPAN 2 | SPAN 1, Beginning Spanish |
|  | Education | SPAN 4 | SPAN 2, High-Beginning Spanish |
| KINE/PE 4 | PE 20, Care and Prevention of Athletic | SPAN 8 | SPAN 3, Intermediate Spanish |
|  | Injuries | SPAN 10 | SPAN 4, High-Intermediate Spanish |
| KINE/PE 8 | HLTH 2, First Aid and Safety | SPAN SEQ A | SPAN 1+2, Beginning/High-Beginning |
| KINE/PE 10 | PE 25, Water Safety Instructor |  | Spanish |
| MATH 2 | MATH 45, Contemporary Math | SPAN SEQ B | SPAN 3+4, Intermediate/High- |
| MATH 4 | MATH 41, Number Systems |  | Intermediate Spanish |
| MATH 8 | MATH 4A, Trigonometry | SPCH 4 | SPEECH 1, Beginning Speech |
| MATH 12 | MATH 21, Finite Mathematics | SPCH 6 | SPEECH 25, Argumentation |
| MATH 16 | MATH 4B, Precalculus | SPCH 8 | SPEECH 2, Interpersonal |
| MATH 18 | MATH 5A, Mathematical Analysis I |  | Communication |
| MATH 20 | MATH 5B, Mathematical Analysis II | STAT 2 | MATH 11, Elementary Statistics |
| MATH 22 | MATH 6, Mathematical Analysis III | The CAN Sy | stem is designed to facilitate student transfer |
| MATH 24 | MATH 7, Introduction to Differential | between and | mong public institutions of higher education |
|  | Equations | in the State | California. |

MATH SEQ C Math $5 \mathrm{~A}+5 \mathrm{~B}+6$, Mathematical Analysis I/II/III
MUS 10 MUS 12, Music Appreciation
PHIL 2 PHIL 1A or 1AH, Theories of Knowledge, Existence \& Beauty
PHIL 1C, Ethics
PHYS 2B, General Physics 2
PHYS 4A, Physics for Scientists and Engineers Engineers Engineers

SEQ A PHYS 2A+2B, General Physics $1 / 2$
PHYS SEQ B PHYS $4 \mathrm{~A}+4 \mathrm{~B}+4 \mathrm{C}$, Physics for Scientists and Engineers Sciences
PSY 36, Intro to Psychophysiology
REC 2 REC 20, Introduction to Recreation
REC 4 REC 21, Recreation Leadership
RUSS 2 RUSS 1, Beginning Russian
RUSS 4 RUSS 2, High-Beginning Russian
RUSS 8 RUSS 3, Intermediate Russian
RUSS 10 RUSS 4, High-Intermediate Russian
RUSS SEQ A RUSS 1+2, Beginning/High-Beginning Russian

Intermediate Russian
SOC 2 SOC 1A, Intro to Sociology
SOC 4 SOC 1B, Problems of Society
SPAN 2 SPAN 1, Beginning Spanish
SPAN 2, High-Beginning Spanish

SPAN 10 SPAN 4, High-Intermediate Spanish
SPAN SEQ A SPAN 1+2, Beginning/High-Beginning Spanish Intermediate Spanish
SPCH 4 SPEECH 1, Beginning Speech
SPCH 6 SPEECH 25, Argumentation
SPEECH 2, Interpersonal Communication
TAT 2 MATH 11, Elementary Statistics
The CAN System is designed to facilitate student transfer in the State of California.

## ADMINISTRATIVE REQUIREMENTS

## 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 with that enrollment. The State Center Community College District exists to educate individuals in our community. 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


The Police Academy at FCC provides student cadets with rigorous and extensive training in law enforcement and the criminal justice system. All courses are certified by the California Commission on Peace Officer Standards and Training.
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 college-controlled 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

Students at Fresno City College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

## Cheating

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

## Plagiarism

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights.

Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on the particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

## 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.

## Illness

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 $\S 48211$ 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

## Administrative Requirements

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. A grade 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

A student may withdraw from all of his/her classes, thereby withdrawing from the college through the last day of the ninth week of instruction (or 50 percent of a term*, whichever is less) by obtaining, completing and filing a withdrawal form from/with the Admissions and Records Office. The student may also mail a signed letter of request postmarked by the $50 \%$ point to completely withdraw from his/her classes to the Admissions and Records Office (please include student identification or social security number). Students are encouraged to discuss complete class withdrawals with an academic counselor before filing the withdrawal. Upon return of the approved withdrawal form, the student will be withdrawn from all of his/her classes and a grade of "W" will be recorded for each class in which the student was enrolled. The "Ws" will not be used in calculating grade point averages, but excessive "Ws" will be used as factors in progress probation and dismissal procedures.

## Dropping/Withdrawal Due to Extenuating Circumstances

Withdrawal from a class or classes will be authorized through the last day of the ninth week of instruction (or 50 percent of a term*, whichever is less). Exceptions to the 50 percent drop deadline may apply due to extenuating circumstances. Extenuating circumstances are verified cases of accidents, illnesses, death in the immediate family, jury duty, declaration of war, natural calamity, military conscription, family or job displacement, instructor error, or other circumstances beyond the control of the student which are justifiable in the judgment of the college president or his/her designee. (CCR, Title 5, Section 55758.)
Petitions for withdrawal due to extenuating circumstances are available from the Admissions and Records Office.

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1. The extenuating circumstances must be fully documented and verified when appropriate. Petitions for medical withdrawals must be processed through the Health Services Office.
2. The student must file his/her petition to withdraw due to extenuating circumstances no later than the end of the semester in which he/she wishes to withdraw.
3. The student must petition to withdraw from all classes she/he is enrolled in (consult with Admissions \& Records for certain exceptions that may apply).
4. The student's instructor(s) will be consulted concerning the request for withdrawal.
5. Approved class withdrawals due to extenuating circumstances shall be recorded as a "W." The "Ws" will not be used in calculating grade point averages, but excessive "Ws" will be used as a factor in progress probation and dismissal procedures.
6. Once final grades have been posted, the instructor of record must be consulted for an appropriate grade review.
7. Exceptions may be considered on a case-by-case basis upon appeal to the college's Academic Standards Committee.

* Term in this context means the duration of a class, which may differ from the length of the normal semester:


In the Applied Technology Division at FCC, students receive bands-on training in a variety of vocational and technical fields. Courses offered in the automotive, construction and manufacturing fields will enable students to become job ready in the local workforce.

## 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.fresno citycollege.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 this information 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.

## 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.
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, disability, 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), the Americans with Disabilities Act 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

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## Declaración: Póliza de la No-Discriminación y las Obligaciones

La 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 SERVICES

Fresno City College is a community college that cares about students' success. As a FCC student, you will find a bost of services to belp 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 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 drop-in 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
D Guaranteed Transfer Admission Programs for early admissions after completing a series of college preparatory courses to:UC Berkeley (CAP-for seniors


Every student at FCC bas access to a multitude of services which include; academic advising, career counseling, disabled students programs, job placement, tutoring services and financial aid.
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.
D Assistance with admission processes and transfer procedures including housing, scholarship/financial aid. General transfer information and Internet college resources (www.fresnocitycollege.com)
D Organized tours and fieldtrips to various colleges and universities
D 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
D Calworks Work Study
D 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-ofstate 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 442-8291.

## 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 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.


There are 18 inter-collegiate athletic teams that men and women can participate in at FCC as student atbletes.

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 $\$ 12$ 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
D Depression and anxiety
D Relationships and communications skills
D Stress and anger management
D 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:
D Federal PELL Grants

- Federal Work Study

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

- Cal Grants

D Bureau of Indian Affairs Scholarships
D 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.

## Job 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. Services 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 list job 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 household 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.

## TRIO Programs

In commitment to providing educational opportunity for all citizens Fresno City College has been awarded three federal TRIO programs to assist low-income, first generation students to enter college, graduate and move on to participate more fully in America's economic and social life. Two of the programs, Upward Bound and Educational Talent Search (ETS), serve high school students to prepare them for post-secondary education.

The Student Support Services Program (SSSP) serves students currently enrolled at Fresno City College to assure retention, graduation and/or transfer to a four-year institution through advising, career planning, financial aid advising, transfer assistance, cultural events, college campus tours and lots of encouragement. Information and applications are above the bookstore in room SC-216.

## 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 schools. 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.

USEAA students participate in various activities that promote student success. They 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. English instructors teach the effective development of college reading, writing, and composition skills in stimulating classroom environments. Students also receive personalized academic, career, and personal counseling from USEAA counselors to assist in planning their education.

USEAA promotes an 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, ext. 8639, or email: victor.yang@fresnocitycollege.edu.

## 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, Teaching and Learning Center, Assessment Center, and the Employment Resource Center 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 60,000 volumes and regularly receives over 2,000 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.

The Multimedia Services Department includes stations equipped with compact disk players, audio cassette players, TV/VCRs, and DVD players. Computers are also available for utilizing Reserve Room multimedia applications. Videotapes, audio cassettes, DVDs, audio books and CDs are available for students and staff to use in the Multimedia Services Department, and most can be circulated outside of the Library.

## 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.

## 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 on a walk-in basis for math and English. For other subjects, arrange an appointment with the Tutorial Center receptionist. Call 442-8209

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:

1. On campus mobility assistance
2. Use of special equipment (i.e., tape recorders and adaptive software)
3. Special parking permit
4. Priority registration
5. Interpreters for the deaf
6. Notetakers
7. Job Placement Assistance
8. Reader services
9. 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

A list 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.

Taher Food Services offers catering services for campus functions.

Yoshino's offers students "Japanese style" menu items. Their menu also includes a selection of breakfast and lunch sandwiches, snack items and drinks. An outdoor patio adjoins Yoshino's, which is located in the Bookstore Building. 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.


At FCC, our student centered environment offers more than 40 degree tracks that can be completed in two years.

## Child Development Center

The Child Development Center is state licensed.
The Center provides 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 Center is located on campus at 1621 E. University Avenue (244-2691).

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. 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, the college Web site and the monthly campus newsletter, City at Large, are all produced by the Public Information Office, using the most advanced techniques in desktop publishing.

The Public Information Office also reviews all publications produced by other Fresno City College campus offices prior to on- or off-campus printing.

## 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 FCC Training Institute, 256-0188, for more information.

## STUDENT ACTIVITIES

# 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
- Alpha Gamma Sigma (AGS)

D Alpha Omega
D American Institute of Architects (AIA)
D Anime Club
D Art Club

- Campus Crusade
- Chess Club

D Club Azteca
D Disabled Students Program Booster Club

- Fellowship of Christian Athletes

D Filipino-American Club
D Hmong Student Club
D Korean American Student Association
D Lao Student Association
D Latter-Day Saint Student Association
D MEChA (Movimento Estudiantil Chicanos de Aztlan)
D Medieval \& Renaissance Student Association

D Muslim Student Association
D Native American Indian Student Association (NAISA)

- Pan Afrikan Student Union (PASU)
- People to People International Club

D Philosophy Club

- Phi Theta Kappa

D Psychology Club
D Remnant
D Republican Club

- Students In Free Enterprise (SIFE)

D Student Paralegal Association
D 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, water polo 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.


Many Central Valley student athletes can continue their sports career while attending FCC. With the help and support of the Athletic Department, students can transfer to a four year university and continue their education.

## 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.

# AREAS OF STUDY BY DIVISION 

APPLIED TECHNOLOGY DIVISION
Administration of Justice
Aerospace Studies
Air Conditioning
Applied Technology
Apprenticeship Training
Automotive/Heary-Duty Electrical
Automotive Mechanics
Body and Fender
Cook
Diesel and Heary-Duty Mechanics
Electronics
Machine Shop
Painting and Decorating
Parts clerk
Roofing
Stationary Engineers
Welding
Architecture
Automotive Collision Repair Technology
Automotive Technology
Auto Tech: GM ASEP
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
Commercial Photography
Digital Photography
Fine Art Photography
Photojournalism 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
Computer Technician
Engine Performance
Engine Repair
Industrial Training
Maintenance Mechanic
BUSINESS DIVISION
Account Clerk
Accounting
Business Administration
Business Law
Entrepreneurial Ventures
Human Resource Management
Business Management
Business Finance
Human Relations
Human Resources
Management and Supervision
Personal Finance and Investments
Small 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)
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
Advertising
Call Center Telemarketing
Customer Relations Specialist
Personal Sales
Retailing
Paralegal

Purchasing
Real Estate
Broker/Sales Option
Escrow Option
Housing Management Option
FINE, PERFORMING AND
COMMUNICATION ARTS DIVISION
Art
Dance
Film
Journalism
Music
Speech Communication
Theatre Arts
HEALTH SCIENCES 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 DIVISION
English
Composition
Creative Writing
Critical Thinking
Reading
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Foreign Languages
American Sign Language
Armenian
Chinese
French
German
Hmong
Japanese
Russian
Spanish
Swahili
Humanities
Linguistics
Literature
Philosophy
MATHEMATICS, SCIENCE AND
ENGINEERING DIVISION
Astronomy
Biology
Biotechnology
Chemistry
Computer Science
Engineering

Environmental Studies
Geography, Physical
Geology
Mathematics
Physical Science
Physics
SOCIAL SCIENCE 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
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| Food Service Management |  | $\bullet$ | $\bullet$ |  | 117 |
| Food Service Management, Child Nutrition |  |  | - |  | 117 |
| General Studies | - |  |  |  | 34 |
| Graphic Communications |  | $\bullet$ | $\bullet$ |  | 118 |
| Graphic Communications, Graphic Design Option | - |  | $\bullet$ |  | 118 |
| Graphic Communications, Web Design |  |  |  | $\bullet$ | 118 |
| Health Information Technology |  | $\bullet$ |  |  | 119 |
| Home Economics, Consumer Education |  | $\bullet$ | $\bullet$ |  | 119 |
| Human Services, Alcoholism and Drug Abuse Counseling Option |  | $\bullet$ | - | $\bullet$ | 120 |
| Human Services, Social Work Option |  | - | - |  | 121 |
| Humanities | $\bullet$ |  |  |  | 121 |
| Industrial Arts and Technology |  | $\bullet$ |  |  | 122 |
| Industrial Technology, Construction Option (Transfer to CSUF) |  | $\bullet$ |  |  | 122 |
| Industrial Technology, Manufacturing Option (Transfer to CSUF) |  | $\bullet$ |  |  | 123 |
| Information Systems, Computer Information Systems |  | - |  |  | 123 |
| Information Systems, Data Entry Operator |  |  | - |  | 124 |
| Information Systems, MCSE Core |  |  |  | $\bullet$ | 124 |
| Information Systems, MCSE Networking |  |  | $\bullet$ |  | 124 |
| Information Systems, Microcomputer Software Specialist |  | - | $\bullet$ |  | 124 |
| Information Systems, Microsoft Access 2000 |  |  |  | $\bullet$ | 125 |
| Information Systems, Microsoft Excel 2000 |  |  |  | $\bullet$ | 125 |
| Information Systems, Microsoft Office 2000 |  |  |  | $\bullet$ | 125 |
| Information Systems, Networking/Computer Technician |  | - | - |  | 125 |

## Associate Degree and Certificate Programs



# FRESNO CITY COLLEGE MAJORS AND TRANSFER MAJORS WITH CODES 


#### Abstract

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

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.


## ACCOUNTING

2400 Account Clerk (CA)
2010 Accounting (AS/CA)
2013 Accounting for Small Businesses (CC)
2010 Business Accounting and Finance (CC)
2405 Computerized Accounting (CC)
2012 Full Charge Bookkeeper (CC)
2011 Junior Accountant (CC)
1060 Adaptive Ornamental Horticulture (CC)
ADMINISTRATION OF JUSTICE
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 SCIENCE
102T 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)
126 T 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)
$681 T$ Architecture (Pre-Architecture Transfer)
ART
$520 \mathrm{~T} \operatorname{Art}(\mathrm{~T})$
5202 Art/Three-Dimensional (AA/CA)
5201 Art/Two-Dimensional (AA/CA)
631 T Astronomy ( T )

## AUTOMOTIVE

8071 Auto Collision Repair Technology (AS/CA)
8051 Automotive Technology (AS/CA/CC)
805G Auto Technology: GM ASEP (AS)

7690 Bilingual/Cross Cultural (AA)
610 T Biological Studies (T)
611 T Botany (T)
8220 Building Safety and Code Administration (AS/CA/CC)
BUSINESS ADMINISTRATION
2050 Business Administration (AA)
205T Business Administration (T)
2053 Business Law (CC)
2041 Entrepreneurial Ventures (CC)
2052 Human Resources Management Assistant (CC)
2051 Retail Management (AS/CA)
BUSINESS \& TECHNOLOGY
2212 Administrative Assist Emphasis (AS/CA/CC)
2201 Business Office Assistant (CC)
2061 Clerical Emphasis (AS/CACC)
2202 Computer Applications Software (CC)
2102 Legal Administrative Assistant Emphasis (AS/CA/CC)
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/CA/CC)
2371 Medical Transcriptionist Emphasis (AS/CA/CC)
2323 Microsoft Word (CC)
2213 Office Professional Emphasis (A/CA/CC)
2322 Word Processor Emphasis (AS/CA/CC)
BUSINESS MANAGEMENT
2031 Business Finance and Accounting (CC)
2271 Business Finance and Investments (CC)
2181 Business Management (AS/CA)
2510 Human Relations and Communications (CC)
2520 Human Resources and Relations (CC)
2182 Management and Supervision (CC)
2032 Personal Finance and Investments (CC)
2030 Small Business Management (CC)
8311 Cabinetmaking Technology (AS/CA)
CAREER \& TECHNOLOGY CENTER
808V Automotive Mechanics, Engine Repair (CC)
804V Automotive Mechanics, Engine Performance (CC)
805V Automotive Mechanics, Brakes, Suspension \& Stering (CC)
807V Automotive Collision Repair (CC)
808W Building Maintenance (CC)
$813 V$ Electronic Technology, Computer Technician (CC)
852V Industrial Training, Warehouse \& Distribution Careers (CC)
806V Maintenance Mechanic (CC)
632 T Chemistry (T)
7661 Chicano-Latino Studies (AA)
CHILD DEVELOPMENT
5615 Child Development (AS/CA)
$561 T$ Child Development ( $T$ )
5614 Child Development Associate Teacher (CC)
5571 Family Day Care (CC)
5580 Foster Care (CC)
546 T Communicative Disorders (T)
3051 Computer Aided Drafting and Design (AS/CA)
8271 Computer Aided Manufacturing (AS/CA)
6920 Computer Science (AS)
692 T Computer Science (T)
8091 Construction (AS/CA)
CRIMINOLOGY
7700 Criminology (AS/CA)
770T Criminology (T)
7731 Criminology/Correctional Science (AS/CA/CC)
8872 Criminology/Law Enforcement (AS/CA)
8923 Criminology/Pre-Academy Training (CA)

## CULINARY ARTS

5684 Culinary Arts, Basic (CC)
5685 Culinary Arts, Intermediate (CC)
5686 Culinary Arts, Advanced (CC)
5390 Dance (AA)
539 T Dance (T)
4580 Dental Hygiene (AS)
$682 T$ Dentistry (Pre-Dentistry Transfer)
ELECTRICAL SYSTEMS TECHNOLOGY
8174 CISC0 Certification (CC)
8165 CISCO CCNP Preparation (CC)
8171 Electrical Systems Technology (AS/CA)
8173 Industrial Control Systems (CC)
8172 Networking/Computer Technician (AS/CA)
720 T Economics (T)
3010 Engineering (AS)
301 T Engineering (Pre-Engineering Transfer)
5300 English (AA)
530 T English/Literature (T)

## 70 Majors and Transfers

8151 Environmental Technology (AS/CA)
FASHION MERCHANDISING
2151 Marketing/Home Economics-Business Division (AS/CA)
2391 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 (AA/CA)
568 T Dietetic Services (T)
5681 Dietetic Services Supervisor (CA)
5682 Food and Nutrition (AS/CA)
577 T Food Science/General (T)
578 T Food Science/Sport Nutrition (T)
5691 Food Service Management (AS/CA)
FOREIGN LANGUAGE
552T French (T)
553T German (T)
554 T Russian (T)
5510 Spanish (AA)
551 T Spanish (T)
$683 T$ Forestry (Pre-Forestry Transfer)
5050 GENERAL STUDIES/NONTRANSFER (AA)
730 T Geography (T)
640 T 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)
450 T Health Science (T)
740 T History/Political Science ( T )
560 T Home Economics (T)
5640 Home Economics/Consumer Education (AS/CA)
HUMAN SERVICES
7951 Alcohol \& Drug Abuse Counseling (AS/CA/CC)
7631 Human Services Social Work (AS/CA)
5330 Humanities (AA)
533T Humanities (T)
INDUSTRIAL TECHNOLOGY
899T Industrial Aits (T)
8991 Industrial Arts \& Technology (AS)
8240 Industrial Technology/Construction Option (AS)
824 T Industrial Technology/Construction Option (T)
8260 Industrial Technology/Manufacturing Option (AS)
826T Industrial Technology/Manufacturing Option (T)
828 T Industrial Technology/Interior Design (T)
INFORMATION SYSTEMS
2081 Computer Information Systems (AS)

2089 Data Entry Operator (CA)
260T Information Systems \& Decision Science (T)
2088 MCSE Core (CC)
2087 MCSE Networking (CA)
2086 Microcomputer Software Specialist (AS/CA)
2433 Microsoft Access Option (CC)
2434 Microsoft Excel Option (CC)
2432 Microsoft 0ffice 2000 Option (CC)
2430 Networking/Computer Technician (AS/CA)
2435 System Support Specialist (CC)
2431 Web Page Development Option (CC)
2083 Webmaster (AS/CA)
5350 Journalism (AS/CA)
535 T Journalism (T)
786T Law (Pre-Law Transfer)
5100 Liberal Arts (AA)
510 T Liberal Arts (T)
769T Liberal Studies/Bilingual Teaching (T)
5890 Liberal Studies (AA)
$589 T$ Liberal Studies/Teaching Credential (T)
5171 Library Technology (AS/CA)
6080 Life Science (AS)
608T Life Science (T)
536 T Linguistics (T)

## MARKETING

2113 Advertising (CC)
2115 Call Center Telemarketing (CA)
2612 Customer Relations Specialist (CA)
2110 Marketing (AS/CA)
2114 Personal Sales (CC)
2116 Retailing (CC)
6200 Mathematics (AS)
620 T Mathematics ( T )
2120 Medical Assistant - Clinician (AS)
455 T 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/Nocal (AA)
683 T Natural Resources (T)
NURSING
4520 Nursing/Registered (RN) (AS)
451 T Nursing (Pre-Nursing Transfer)
614 T 0ceanography (T)
685T Optometry (Pre-Optometry Transfer)
2550 Paralegal (AS/CA)
2552 Paralegal, Legal Assistant-Clerk (CC)
686T Pharmacy (Pre-Pharmacy Transfer)
570 T Philosophy (T)
PHOTOGRAPHY
5222 Commercial Photography (CC)
5223 Digital Photography (CC)

5224 Fine Art Photography (CC)
5225 Photojournalism (CC)
5221 Professional Photography (AS/CA)
420T Physical Education (T)
6300 Physical Science (AS)
630 T Physical Science (T)
463T Physical Therapy (Pre-Physical Therapy Transfer)
633 T Physics (T)
745 T Political Science (T)
217 T Public Administration (T)
750 T 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)
430 T 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 )
799 T Social Work ( T )
760T Sociology (T)
5510 Spanish (AA)
5430 Speech Communication (AA)
538 T Speech Communication (T)
7003 Students Understanding College, Careers, Employment, Support and Success (CC)
4572 Surgical Technology (AS/CA)
306 T Surveying \& Photogrammetry (T)
TEACHING
5910 Teacher Aide (AS/CA)
5970 Teacher Aide/General (CC)
5981 Education Aide/Special Education (CC)
769 T Teaching, Bilingual (Pre-Teaching Transfer)
$592 T$ Teaching, Elementary and Early Childhood (Pre-Teaching Transfer)
589T Teaching, Liberal Studies (Pre-Teaching Transfer)
$593 T$ Teaching, Secondary (Pre-Teaching Transfer)
541T Telecommunications (T)
THEATRE ARTS
5482 Design/Technical Theatre Studies (AA/CA)
5440 Theatre Arts (AA)
544 T Theatre Arts/Drama (T)
787 T Theology (Pre-Theology Transfer)
689 T Veterinary (Pre-Veterinary Transfer)
WELDING TECHNOLOGY
8371 Metal Fabrication Option (AS/CA)
8372 Pipe \& Structural Steel Certificate Option (AS/CA)
612T Wildlife Management (T)
7610 Women's Studies (AA)
761T Women's Studies (T)
7002 Work Assessment Vocational Education, WAVE (CC)
613 T Zoology ( T )

AA $=$ Associate in Arts Degree
$A S=$ Associate in Science Degree $\quad C A=$ Certificate of Achievement $\quad C C=$ Certificate of Completion $\quad T=$ Transfer only

## DIVISIONS

## 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 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 29 .


FCC is proud to offer the CISCO Systems training through the Applied Technology Division. Students who enroll in the CISCO Academy are immediately recruited and hired upon completion of this highly specialized program.

## Applied Technology Division

Richard I. Christl, Associate Dean of Instruction Division Office: Applied Technology, T-100
Phone: (559) 442-8273
Fax: (559) 498-8350
Division E-mail:
fcc.appliedtechnology@
fresnocitycollege.edu

## 72 Applied Technology Division

## 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 \#8924)
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

1. Body and Fender (Major \#9080)
2. Cook (Major \#9085)
3. Diesel and Heavy-Duty Mechanic (Major \#9100)
4. Machine Shop (Major \#9200)
5. Partsclerk (Major \#9260)
6. Roofing (Major \#9300)
7. Welding (Major \#9380)

Automotive Technology (Major \#8051)
Completion of any 4 of the following courses: AUT0T 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)

## Professional Photography

1. Commercial Photography (PHOTO 12, 20, 25, 35) (Major \#5222)
2. Digital Photography (РНОТО 10, 12, 23, 45) (Major \#5223)
3. Fine Art Photography (PHOTO 15, 20, 33, 45) (Major \#5224)
4. Photojournalism (РНОТО 10, 12, 30, 40) (Major \#5225)

## 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 Agility Test, or be sponsored by a law enforcement agency. A medical 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.


The FCC Career and Technology Center offers students an intensive bands-on learning experience in the vocational trades. All classes are open entry with year round registration.
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.
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 \& 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 and job placement services are available.

## Career \& Technology Center

2930 E. Annadale Avenue Fresno, CA
Phone: (599) 486-0173

## 74 Applied Technology Division

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

## Courses and Programs

Most 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 to take a reading test 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.

A Certificate of Completion will be awarded for successful completion of each of the following CTC programs with a minimum " $C$ " grade.

| 1. Automotive Collision Repair Hours |  |
| :--- | ---: |
| Automotive Collision Repair 370, |  |
| Automobile Collision Repair and Paint Refinishing |  |
| (Major \#807V) | 900 |

2. Automotive Mechanics Hours

Auto Mech 371, Engine Repair
(Major \#808V)
600
Auto Mech 372, Engine Performance
(Major \#804V)
Auto Mech 373, Brakes, Suspension
$\quad$ \& Steering (Major \#805V) 600
3. Building Maintenance Hours

Building Maintenance (Major \#808W) 600
4. Electronic Technology Hours

Elect Tech 370, Computer Technician (Major \#813V)
5. Industrial Training Hours

Indust Train 371, Warehouse and Distribution
Careers (Major \#852V)
200
6. Maintenance Mechanic (Major \#806V) Hours

Maint Mech 370, Weld/Machine Shop 900
Maint Mech 371, Hydraulics/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 specialize 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 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. Twentyfive 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.

## Business Division

Marilyn Meyer,
Associate Dean of Instruction
Division Office:
Business Building, BE-110
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Fax: (559) 265-5719
Division E-mail:
fcc.businessdivision@
fresnocitycollege.edu


The FCC Business Division offers a wide range of classes for students who are interested in pursuing a career in the business field. Training programs, job placement and basic skills are just a few of the areas that are available for students who want to better their work skills.

## 76 Business Division

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 29.

## 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 29.

## 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

A certificate of completion may be awarded by completion of a combination of courses listed below with a minimum "C" average in each course.

## Accounting

1. Accounting for Small Businesses (ACCTG 4A, 4B, 32; BA 38) (Major \#2013)
2. Business Accounting and Finance (ACCTG $4 \mathrm{~A}, 4 \mathrm{~B}$; BA 35) (Major \#2010)
3. Computerized Accounting (ACCTG 19, 34, 55, 70, 260; BT 1, 4, 20, 21, 28, 131, 250, 271; DS 270) (Major \#2405)
4. Full Charge Bookkeeper (ACCTG 4A, 56, 73, 260) (Major \#2012)
5. Junior Accountant (ACCTG 4B, 19, 32, 51, 56, 73) (Major \#2011)

## Business Administration

1. Business Law (BA 18, 20; BA/MGMT 10, BA/MGMT 31) (Major \#2053)
2. Entrepreneurial Ventures (BA 50, 51, 52) (Major \#2041)
3. Human Resource Management and Assistant (BA/ MGMT 31, BA/MGMT 33, BT 1, BT 9/BT 25/IS 25) (Major \#2052)

## Business and Technology

1. Business Office Assistant (BT 1, 2, 7, 19, 20, 21, 29, 250, 270, 271, 272, 273, 274, 277) (Major \#2201)
2. Computer Applications Software (BT 7, BT/IS 14, BT/IS 18, BT/IS 25, BT 122, BT 250/IS 260) (Major \#2202)
3. Medical Billing Assistant (BT $1,19,20,21,116,122$, 147, 148, 250, 270, 271, 272, 273) (Major \#2242)
4. Microsoft Word (BT 28, 29) (Major \#2323)

## Business Management

1. Business Finance and Accounting (ACCTG 4A, 4B; BA 35) (Major \#2031)
2. Business Finance and Investments (BA 34, 35) (Major \#2271)
3. Human Relations and Communications ( $\mathrm{BA} / \mathrm{BT} 5$, BA/MGMT 33) (Major \#2510)
4. Human Resources and Relations (BA/MGMT 31, BA/MGMT 33) (Major \#2520)
5. Management and Supervision (BA/MGMT 40, BA/ MGMT 43) (Major \#2182)
6. Personal Finance and Investments (BA 30,34 ) (Major \#2032)
7. Small Business Management (BA 38, 51) (Major \#2030)

## Information Systems

1. MCSE Core (IS 30A, 30B, 30C) (Major \#2088)
2. Microsoft Access 2000 (IS 27, 28) (Major \#2433)
3. Microsoft Excel 2000 (BT/IS 18; IS 20, 21) (Major \#2434)
4. Microsoft Office 2000 (BT/IS 25, IS 46) (Major \#2432)
5. System Support Specialist (EST 60; IS 17, 22, 231, 238, 239) (Major \#2435)
6. Web Page Development (IS 23, 24, 40) (Major \#2431)

## Marketing

1. Advertising (BA 33; MKTG 10, 12) (Major \#2113)
2. Personal Sales (BA 33, MKTG 10, 11) (Major \#2114)
3. Retailing (BA 33, MKTG 10, 14) (Major \#2116)

## Paralegal, Legal Assistant-Clerk

BA 20, 30, 112, 250; PLEGAL 14, PLEGAL 156/BT 140
(Major \#2552)

## 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.

## Fine, Performing and Communication Arts Division

The Fine, Performing and Communication Arts Division offers a rich variety of courses to acquaint students with the arts. The courses in the division examine the breadth of human experience through the study, analysis, and discussion of art, film, music, theater, and interpersonal communication.

## Associate in Arts Degree

Art, Two-Dimensional Art
Art, Three-Dimensional Art
Dance
Music, Guitar
Music, Instrumental
Music, Vocal
Speech Communication
Theatre Arts

## Associate in Science Degree

Journalism
Music, Commercial Music
Certificate of Achievement
Art, Two- or Three-Dimensional Art Journalism
Music, Commercial Music

## 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.

Fine, Performing and Communication Art Division
Frank M. Quintana, Associate Dean of Instruction Division Office:
Theatre Building, TA-103
Phone: (559) 265-5752
Fax: (559) 265-5755
Division E-mail:
fcc.artsdivision@
fresnocitycollege.edu


## 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

A juried 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.



The FCC Music Department offers a rich and varied array of performance groups and academic courses for students. The FCC Concert Band pictured bere has been nationally recognized and has played in international venues including the 60th Anniversary at Normandy Beach in France.

## Theatre Arts

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

## 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

- Registered Nursing

D Respiratory Care Practitioner
D Surgical Technology
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 on pages $235,269,278$ and 279.

## 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 11 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.


Fresno City College bas one of the bighest number of nursing graduates in the United States and trains more nursing students than any other college in the Western United States.

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 two-year 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.

## Health Sciences <br> Division

Carolyn C. Drake, Ed.D., Associate Dean of Instruction Division Office: Health Sciences Building, HS-1
Phone: (559) 244-2604
FAX: (559) 244-2626
Division E-mail: fcc.healthsciences@
fresnocitycollege.edu

## Humanities

## Division

Michael D. Roberts, Associate Dean of Instruction Division Office:
Humanities Office, F0-41
Phone: (559) 442-8281
FAX: (559) 265-5756
Division E-mail:
fcc.humanities@
fresnocitycollege.edu

## 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.


The Fresno City College Forensics Team is nationally ranked and consistently places first among community colleges and four-year colleges alike.

## 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.

## 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 224.

## 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.

## Math, Science and Engineering Division

The Math, Science and Engineering Division includes the departments of Biology, Chemistry, Computer Science, Engineering, Mathematics, Physics, and the Physical Sciences. The Math, 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, biotechnology, chemistry, dentistry, engineering, forestry, geology, horticulture, mathematics, nursing, medicine, veterinary medicine, physics, pharmacy, and physical therapy. Honors classes are available as well.

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

## Biology

The Biology Department is housed in the Science Building at the southeast corner of the campus. There is an excellent greenhouse and Natural History Museum available for tours or student use. With both the Sierra Nevada crest and the Pacific coast nearby there are numerous field trip opportunities that give the students an opportunity that is not available at many other institutions.

The two-year associate degree program in Biology is principally transfer programs. The specified field requirement for the associate in science degree with a major in the life sciences can be fulfilled by completing the following:

## Chemistry

The Department of Chemistry is dedicated to its goal of preparing students for a career in Chemistry and for continuing education at a four-year college or university. The department consists of five full-time faculty plus adjuncts. The department offers a wide selection of courses
that could lead to Bachelor of Science degrees in programs such as Chemistry, Chemical Engineering, Chiropractic, Medicine, Pharmacy, Biotechnology, and Biochemistry. Students emphasizing medicine or veterinary medicine have membership in FCC's Pre-Med Club. The Chemistry department is housed in the Science Building on the Southeast side of campus.

The Chemistry Department is very proud of its individual, specialized research spaces; laboratories and classrooms; instrument labs; both PC and Mac computer facilities and equipment; audio-visual and multi-media equipment; modern instruments such as FTIR and UV-Visible spectrometers, Atomic Absorption Spectrophotometer, H-1 and C-13 FTNMR spectrometer, and Gas Chromatograph/Mass Spectrometer.

The two-year associate degree program in Chemistry is principally transfer programs. The specified field requirement for the associate in science degree with a major in the life sciences can be fulfilled by completing the following:

## 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 units may be selected from Chemistry, Physics, and Earth Science (Astronomy, Physical Geography, and Geology). The recommended sequence includes Biology 1, Biology 4, Biology 6, and Chemistry 1 A , and 1 B .

## Math, Science and Engineering Web Site Addresses

Division: www.fresnocitycollege.edu/mathscience/
Biology, Chemistry, and Mathematics
www.fresnocitycollege.edu/mathscience/biology/index.html www.fresnocitycollege.edu/mathscience/chemistry/index.html www.fresnocitycollege.edu/mathscience/mathematics
Sciences: Engineering, Geology, and Physics
www.fresnocitycollege.edu/mathscience/sciences/engcourses.html www.fresnocitycollege.edu/mathscience/sciences/geolcourses.html www.fresnocitycollege.edu/mathscience/sciences/phycourses.html

## Mathematics and Computer Science

The Department of Mathematics is a service department by fulfilling Fresno City College's math graduation requirements for the AA and AS degrees, and courses for a graduation requirement for the various BA degrees offered at four-year institutions. The department provides courses for other Divisions of the college as well as for the Mathematics, Science and Engineering transfer student.

The mathematics department program offers courses in basic arithmetic skills, as well as prerequisite courses for science, engineering, and business courses. In addition, the department offers courses for students who intend to major in mathematics at a university.

The Computer Science Major falls under the purview of the Mathematics Department. 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, along with Math 5A and 5B. Additional computer programming courses should be taken as necessary to expand the student's programming background.

Computer science courses include Computer Programming in BASIC (CSCI 10), Computer Programming in FORTRAN (CSCI 20), Discrete Mathematics for Computer Science (CSCI 26), Programming in the PASCAL Language (CSCI


The Math, Science and Engineering Division offers students opportunities to gain practical experience in the natural sciences and engineering fields enbancing their ability to transfer into prestious four-year colleges and universities.
30), Computer Programming Concepts and Methodology in C++ I (CSCI 40), Computer Programming Concepts and Methodology in C++ II (CSCI 41), and Programming Concepts and Methodology in JAVA (CSCI 40J).

The Mathematics Department is housed in the Science Building on the Southeast side of campus.

## Engineering and Physical Science

The Department of Physical Sciences includes Engineering, Geology, Physics, Physical Science, and Physical Geography. The two-year associate degree programs in these areas are primarily transfer programs.

Engineers apply the theories and principles of science and mathematics to practical technical problems. Mathematics, physics, chemistry, and introductory engineering courses such as circuit analysis, surveying, and statics make up the bulk of the Engineering classes. The classes are designed so there is a smooth transfer to the candidate's chosen college or university.

## 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.

Geology is the study of the structure, composition, and history of the earth's crust. By examining the surface of rocks and drilling to recover rock cores, the geologist is able to determine the types and distribution of rocks beneath the earth's surface.

Geological training is also valuable in the pursuit of rock and mineral identification, conduct of geological surveys, drawing of maps, and collecting geological data and measurements. Knowledge of geology is invaluable in predicting future geological events such as earthquakes and volcanic eruptions.

## Physics

Physics, the fundamental science, conceptualizes the principles of the universe and establishes the foundation for astronomy, chemistry, and geology. The beauty of physics is in a small number of powerful concepts which expand our view of the world around us and which lead to many engineering applications from which humans derive many benefits.

## Social Sciences Division

The aim of the social sciences 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. The intention is to search for greater social justice, personal freedom and mutual understanding. The Division is divided into six departments:

- Anthropology, Economics and Geography, including:
Archaeology
D Cultural and Women's Studies including: African American Studies
American Indian Studies
American Studies
Asian American Studies
Chicano/Latino Studies
Women's Studies
D History and Political Science
- Child Development
- Psychology and Education, including

Education Aide
D Criminology, Human Services, Sociology, including:
Fashion Merchandizing

## Food and Nutrition

Food Service Management
Home Economics
Courses offered satisfy transfer and associate degree general education requirements. The Division is also home (along with the Humanities Division) to the Liberal Studies and Liberal Arts degree programs.

In addition, the Social Sciences Division offers career training in:
D Archaeology Technician
D Criminology
D Social Work
D Alcohol and Drug Abuse Counseling

- Child Development

D Home Economics
D Law Enforcement

D Corrections
D Culinary Arts
D Dietary Aide
D Dietetic Service Supervisor
D Child Nutrition
D Food Service Management

## 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 of science degree mandates a minimum of 60 units, consisting of the major, electives, and required courses in general education.

The Social Sciences Division offers career training in the following areas: archaeology, child development, criminology (including police and law enforcement, correctional science, and pre-academy training), education and instructional aide, food services (including culinary arts, dietary aide, dietetic service supervisor, food service management, and nutrition science), home economics and consumer education, and human services (including social work and alcoholism counseling).

## Social Sciences Division

M.E. Mericle, Ph.D.,

Associate Dean of Instruction Division Office:
Social Sciences Building, S0-123
Phone: (559) 442-8210
FAX: (559) 265-5776
Division E-mail:
fcc.socialsciences@
fresnocitycollege.edu

## DISTRICT COURSES AND PROGRAMS

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

## Career \& Technology Center

Located off the main campus, the Fresno City College Career \& 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:
D Auto Collision Repair
D Brakes/Suspension \& Steering
D Building Maintenance
D Engine Performance/Emission Control
D 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:
D Aeronautics

- Criminal Justice

D 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

D 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 - MAJOR \#2400

This curriculum is designed for entry-level employment as an account clerk where advanced accounting principles are not required.

## CERTIFICATE OF ACHIEVEMENT

## First Semester Units

ACCTG $4 \mathrm{~A} \quad$ Financial Accounting..................................... 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 Semester <br> Units

ACCTG 4B Managerial Accounting........................................ 4
ACCTG 32 Computerized Accounting \& Quickbooks .............. 3
BT 4 Ten-Key Calculation............................................. 2
BT 20 Resume/Interview ................................................ 1.5
BT 21 Working Relationships......................................... 1.5
BT 112 Business English ................................................. 2
Total 14

## ACCOUNTING - MAJOR \#2010

The accounting degree program qualifies the student for entry-level accounting positions in business, government, industry, and financial institutions. This program is designed for a two-year associate in science degree or certificate of achievement. Students interested in pursuing a bachelor's degree in accounting should consult the catalog of the transfer institution for specific requirements.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT <br> FIRST YEAR

First Semester
Units
*ACCTG 4A
Financial Accounting .. 4
BA 10 Introduction to Business .................................. 3
IS 15
Computer Concepts ......................................... 3

| Second Semester |  |
| :---: | :---: |
| *ACCTG 4B | Managerial Accounting.................................... 4 |
| *ACCTG 32 | Computerized Accounting \& QuickBooks ............. 3 |
| IS 18 | Spreadsheet Fundamentals................................1.5 |
|  | Total 8.5 |
| SECOND YEAR |  |
| First Semester | Units |
| *ACCTG 53 | Tax Accounting-Manual \& Computerized ............ 3 |
| *ACCTG 56 | Payroll Accounting......................................... 2 |
| BT 123 | Ten-Key Skillbuilding ....................................... 1 |
|  | Total 6 |
| Second Semester | er Units |
| *ACCTG 19 | Work Experience (Coop), Occup ........................ 1 |
| *ACCTG 51 | Intermediate Accounting .................................. 4 |
| ACCTG 52 | Cost Accounting............................................. 3 |
|  | Total 8 |

Recommended Electives: ACCTG 73; BA 5, 16, 18, 30, and 33; BT 4, 20 , and 21; ECON 1A and 1B; IS 14, 20, 25, and 26.

* The advanced accounting courses noted above can also be used to satisfy the 24-unit eligibility requirement that must be met before a person can take the CPA Exam. Many students take these courses to satisfy that CPA exam requirement as well as to satisfy the associate in science degree requirement.
Note: Associate degree requirements are listed on page 29.


## ACCOUNTING FOR SMALL BUSINESSES MAJOR \#2013

This curriculum is designed to provide knowledge and skills to individuals seeking to establish accounting systems and complete the accounting functions for small businesses.


| BUSINESS ACCOUNTING AND FINANCE - <br> MAJOR \#2010 |  |
| :---: | :---: |
| This curriculum is an option for both Accounting and Finance majors. It is designed to assist students who are pursuing a career in business finance and/or accounting by demonstrating a basic understanding of business accounting and financial principles. |  |
| CERTIFICA | F COMPLETION Units |
| ACCTG 4A | Financial Accounting................................... 4 |
| ACCTG 4B | Managerial Accounting................................. 4 |
| BA 35 | Business Finance...................................... 3 |
|  | Total 11 |
| COMPUTERIZED ACCOUNTING - MAJOR \#2405 |  |
| CERTIFICATE OF COMPLETION |  |
| ACCTG 19 | Work Experience (Coop), Occup ...................... 3 |
| ACCTG 34 | Accounting Spreadsheets............................... 3 |
| ACCTG 55 | Accounting Methods...................................... 1 |
| ACCTG 70 | Accelerated QuickBooks ............................... 1 |
| ACCTG 260 | Accounting Skills Lab................................ 1 |
| BT 1 | Beginning Typing....................................... 3 |
| BT 4 | Ten-Key Calculation. |
| BT 20 | Resume/Interview ...................................... 1.5 |
| BT 21 | Working Relationships...................................1.5 |
| BT 28 |  |
| BT 131 | Applied Accounting ..................................... 3 |
| BT 250 | Office Skills Lab. |
| BT 271 | Business Grammar Fundamentals.................... 2 |
| DS 270 | Business Math Skills. |

## FULL CHARGE BOOKKEEPER - MAJOR \#2012

## CERTIFICATE OF COMPLETION Units

ACCTG 4A Financial Accounting........................................... 4
ACCTG 56 Payroll Accounting............................................... 2
ACCTG 73 MAS90 Fundamentals .......................................... 2
ACCTG 260 Accounting Skills Lab........................................... 1
Total 9

## JUNIOR ACCOUNTANT - MAJOR \#2011

This curriculum is designed to provide knowledge and skills to individuals seeking employment as a junior accountant in medium-to-large sized organizations.

## CERTIFICATE OF COMPLETION <br> Units

ACCTG 4B Managerial Accounting......................................... 4
ACCTG 19 Occupational Work Experience ............................ 1
ACCTG 32 Computerized Acctg \& QuickBooks ....................... 3

Total 25.5
ACCTG 51 Intermediate Accounting .....  4
ACCTG 56 Payroll Accounting .....  2ACCTG 73
MAS90 Fundamentals .....  2
ADAPTIVE ORNAMENTAL HORTICULTURE SKILLS - MAJOR \#1060
The adaptive ornamental horticulture skills program is designed to providestudents 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.CERTIFICATE OF COMPLETIONFIRST YEAR
First Semester ..... Units
DEVSER 275 Horticulture Skills .....  2
DEVSER 262 Group Interaction for Students with Disabilities... ..... Total 4
Second Semester ..... Units
DEVSER 276 Horticulture Skills II .....  2
DEVSER 262 Group Interaction for Students with Disabilities. .....  2
SECOND YEAR
First Semester ..... Units
DEVSER 282 Greenhouse Workforce Prep .....  4
Total 4
Second Semester ..... Units
DEVSER 282 Greenhouse Workforce Prep. .....  4
Total 4

## AFRICAN-AMERICAN STUDIES -

## MAJOR \#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 learn about themselves and their heritage and promote a 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 students to identify with higher education and the environment, resulting in a sense of pride in their heritage and culture.

## 88 Air Conditioning

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.

## ASSOCIATE IN ARTS DEGREE <br> TOTAL UNITS REQUIRED ............................................ 27

REQUIRED 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
AFRAM 4 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 OPTIONS: 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 Black Gospel Choir................................................ 3
AFRAM 21/SWAHLI 1 Beginning Swahili................................................ 4
AFRAM 22/SWAHLI 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.
2. Associate degree requirements are listed on page 29 of this catalog. General Education requirements for transfer certification are on page 36.

## AIR CONDITIONING - MAJOR \#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 (ARI) Industry Competency Examination(s), the North American Technician Excellence (NATE) core section of the certification exam, R-410A safety certification exam and EPA approved certification under provisions of the Federal Clean Air Act, Section 608.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
FIRST 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 |  | Units |
| AC 52 | Heating Systems ................................ | .......... 6 |
| AC 54 | Commercial Systems...................... | ............ 6 |
| AC 56 | Duct Systems ........ | .......... 3 |

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 Semester ..... Units
ARCH 12 Architectural Practices .....  3
AT 40 Preparing for Employment Opportunities. .....  3
AT 120 Industrial Science .....  3
EST 55A Digital Concepts .....  3
Note: Students qualify for the certificate of acbievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 29 of the catalog, upon application, will be awarded the associate in science degree.
CERTIFICATE OF COMPLETION ..... Units
AC 60A Fund of Refrigeration. .....  3
AC 260B Electricity for Air Conditioning .....  3
AC 260C Residential Heating. .....  3
AC 260D Troubleshooting Procedures .....  3
Total 12

## AMERICAN INDIAN STUDIES - MAJOR \#7680

Fresno City College is located in an area that is rich in the history and contemporary cultures of American Indians. California has the highest Ameri-can-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
REQUIRED CORE COURSES Units
AMIND 31 American Indian Culture..................................... 3
AMIND 32 American Indian History...................................... 3
AMIND 33 Indians of the San Joaquin Valley ......................... 2
AMIND 34 American Indian Contempry Society..................... 3
AMIND 35 American Indian Art............................................ 3
Total 14
COURSE OPTIONS: SELECT A MINIMUM OF 9 UNITS Units
ANTHR0 14 Folklore.............................................................. 3
ANTHRO $20 \quad$ California Indians.............................................. 3
ANTHRO 28 Ancient Mexico ................................................... 3
AFRAM 5 The African in the New World............................... 3
GEOG 2 Cultural Geography............................................ 3
SOC 2 American Minority Groups................................... 3
Notes: 1. An associate in arts degree will be awarded to any candidate who successfully completes a total of 60 units. The 60 units must include associate degree requirements and 22 units in course work as listed above.
2. Associate degree requirements are listed on page 29 of this catalog. General Education requirements for transfer certification are on page 36.

## ANTHROPOLOGY - MAJOR \#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.

## ASSOCIATE IN ARTS DEGREE

TOTAL UNITS REQUIRED ............................................ 21
REQUIRED CORE COURSES Units
ANTHRO 1 Physical Anthropology ......................................... 3
ANTHRO 2 Cultural Anthropology ......................................... 3
ANTHRO 3 Int to Archaeology \& World Prehistory, or ANTHRO 4 Int to Archaeology: Methods \& Theory ............... 3

Total 9

## ELECTIVES: 12 units MINIMUM

One course from each of Categories I, II, and III, with at least one additional course from either Category I or II.
Category I: Culture Studies*ANTHRO 3 Int to Archaeology \& World Prehistory.................... 3
ANTHRO 13 Magic, Witchcraft, and Religion .....  3
ANTHRO 20 California Indians ..... 3
ANTHRO 28 Ancient Mexico .....  3
ANTHRO 29 Study Abroad ..... 1-3
ANTHRO 30 Topics in Anthropology ..... 1-3
*If not used for core requirement.
Category II: Practical Applications ..... Units
ANTHRO 5 Analytical Methods in Archaeology .....  4
ANTHRO 6 Field Archaeology ..... 2-6
ANTHRO 7 Anthropological Museum Studies. .....  3
ANTHRO 19 Work Experience (Coop), Occup ..... 1-4
ANTHRO 27 Archaeological Reconnaissance .....  1
Category III: Supplemental Studies from other Disciplines ..... Units
AFRAM 1 African-American Culture .....  3
AFRAM 6 African Cultures and Languages .....  3
AMIND 31 American Indian Culture. .....  3
ASAMER 10 Hmong Culture .....  3
BIOL 7 Field Biology .....  4
CHDEV 15 Diversity Issues in Early Care \& Ed Prog .....  3
CULTS 10 Islamic Culture .....  3
GEOG 2 Cultural Geography. .....  3
PHIL 4 Critical Reasoning (highly recommended) .....  3

Other courses may be substituted for electives in Category III at the discretion of the anthropology faculty based on student's area of focus; i.e., if a student is particularly interested in forensic anthropology, CRIM 8 would be an appropriate elective. If a student is particularly interested in biological anthropology, BIOL 8 or BIOL 20/22 would be appropriate electives.

The associate of arts degree in anthropology requires the completion of the major ( 21 units) with a 2.0 or better G.P.A. as well as the completion of the associate of arts general education requirements. It is highly recommended that anthropology majors include the following in their general education courses: LING 10, PSY 2, SOC 1A, as well as at least a year of a foreign language.

## SUGGESTED SEQUENCE OF COURSES

First Semester (Fall) Units
ANTHRO 2 Cultural Anthropology ......................................... 3
Elective(s) Category 1 or II
Second Semester (Spring) Units
$\begin{array}{lc}\text { ANTHRO } 3 & \text { Int to Archaeology \& World Prehistory, or } \\ \text { ANTHR } 0 & \text { Int to Archaeology: Methods \& Theory ............... } 3\end{array}$
Elective(s) Category I or II
Third Semester (Fall) Units
ANTHRO 1 Physical Anthropology ......................................... 3
Elective(s) Category I or II or III
Fourth Semester (Spring)
Elective(s) Category I or II or III

## 90 Anthropology - Archaeology

ANTHROPOLOGY - ARCHAEOLOGYARCHAEOLOGICAL TECHNICIAN - MAJOR \#7120
The paraprofessional archaeologist works as a field and laboratorytechnician or assistant supervisor under the direction of professionals. Thecertificate of achievement is a program designed to enable nonprofessionalarchaeologists to receive training in the various aspects of modern archaeol-ogy and to achieve recognition and employment in this scientific field.
CERTIFICATE OF ACHIEVEMENTTOTAL UNITS REQUIRED21
REQUIRED CORE COURSES: 15 units MINIMUM Units
ANTHRO 1 Physical Anthropology ..... 3
ANTHRO 2 Cultural Anthropology ..... 3
ANTHRO 4 Int to Archaeology: Methods \& Theory ..... 3
ANTHRO 5 Analytical Methods in Archaeology ..... 4
ANTHRO 6 Field Archeology ..... 2-6
Total 15-19
COURSE OPTIONS: 6 units MINIMUMAt least one course from each of the following two cat-egories:
Category I: Culture Area Studies ..... Units
ANTHRO 3 Int Archaeology and World Prehistory .....  3
ANTHRO 20 California Indians ..... 3
ANTHRO 28 Ancient Mexico. ..... 3
ANTHRO 29 Study Abroad ..... 3
Category II: Practical Applications ..... Units
ANTHRO 7 Anthropological Museum Studies. .....  3
ANTHRO 19 Work Experience (Coop), Occup ..... 1-4
ANTHRO 27 Archaeological Reconnaissance ..... 1
ART $7 \quad$ Beginning Drawing ..... 3
BIOL $7 \quad$ Field Biology (highly recommended) ..... 4
GEOG 10 Intro to Geographic Information Systems ..... 3
GEOL 1 Physical Geology (highly recommended) ..... 4
PHOTO 5 Intro to Photography ..... 3
Other courses may be substituted for electives in Category II at the discretion of the archeological technician certificate program director based on student's area of focus; i.e., if a student is particularly interested in archaeological ceramics, ART 10 may be an appropriate elective. If a student is interested in floral or faunal analysis, BIOL 6 (Botany) or 4 (Zoology) may be appropriate electives. If a student is interested in human skeletal analysis, BIOL 20 (Human Anatomy) may be an appropriate elective. This flexibility will aid students in acquiring specific knowledge, skills, and abilities, which will then aid them in obtaining employment or transferring to a four-year institution.
SUGGESTED SEQUENCE OF COURSES
First Semester (Fall) Units
ANTHRO 2 Cultural Anthropology .....  3
ANTHRO 5 Analytical Methods in Archaeology .....  4
Optional Course(s)
Second Semester (Spring) ..... Units
ANTHRO 4 Int to Archaeology: Methods \& Theory .....  3
ANTHRO 6 Field Archaeology ..... 1-2
Optional Course(s)
Third Semester (Fall) Units
ANTHRO 1 Physical Anthropology .....  3
Optional Course(s)
Fourth Semester (Spring) ..... Units
ANTHRO 6 Field Archaeology ..... 1-2
Biol 7 Field Biology (highly recommended elective) .....  4
APPRENTICESHIP AUTOMOTIVE AND HEAVY-DUTY ELECTRICAL - MAJoR \#9020This curriculum is designed for the auto electrical or heary-duty electricalworker who is employed full time and indentured as an apprentice by theAutomotive Mechanics Joint Apprenticeship Committee.
CERTIFICATE OF ACHIEVEMENT
FIRST 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
THIRD YEAR
First Semester ..... Units
SPEECH 2 Interpersonal Communication .....  3
Second Semester ..... Units
DRAFT 12 Board Drafting Practices .....  3
FOURTH YEAR
First Semester ..... Units
AUTOT 284 Automotive Air Conditioning .....  3
Second Semester ..... Units
Elective* .....  3
APPRENTICESHIP AUTOMOTIVE
MECHANICS - MAJOR \#9040
This curriculum is designed for the automotive mechanic who is employedfull time and indentured as an apprentice by the Automotive Mechanics JointApprenticeship Committee.
CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester ..... Units
*AUTOT 9 Automotive Fundamentals. ..... 3
AuTOT 52 Auto Electrical Systems .....  5
**AUTOT 19 Work Experience (Coop), Occup ..... 2-4
Second Semester ..... Units
AUTOT 53 Engine Performance .....  5
**AUTOT 19 Work Experience (Coop), 0ccup ..... 2-4
SECOND YEAR
First Semester ..... Units
AUTOT 55 Powertrains .....  5
**AUTOT 19 Work Experience (Coop), Occup ..... 2-4
Second Semester ..... Units
AuTOT 54 Suspension/Steering/Alignment .....  5
**AUTOT 19 Work Experience (Coop), Occup ..... 2-4
THIRD YEAR
First Semester ..... Units
AuTOT 56 Auto Brake Systems .....  5
**AUT0T 19 Work Experience (Coop), 0ccup ..... 2-4
Second Semester ..... Units
AUTOT 57 Heating and Air Conditioning. ..... 5
FOURTH YEAR
First Semester ..... Units
WELD 1 Basic Welding ..... 3
Second Semester ..... Units
at 10 Computer Applications. ..... 2
APP $360 \quad$ Apprenticeship First Aid ..... 1

* High School Articulation (1 year)** Apprentice must complete at least 10 units of work experienceRecommended Elective: AUTOT 261A, 262A, 281A.
APPRENTICESHIP BODY AND FENDER -

MAJOR \#9080

    This curriculum is designed for the body and fender mechanic who is
    employed full time and indentured as an apprentice by the Automotive

Mechanics Joint Apprenticeship Committee.
CERTIFICATE OF COMPLETION
FIRST YEAR
First Semester Units
APP 360 Intro to Apprenticeship Training .....  0
Second Semester ..... Units
AUTOT 9 Automotive Essentials .....  .3
SECOND YEAR
First Semester Units
AUTOT 282A Suspension and Wheel Alignment .....  3
Second Semester ..... Units
WELD 1 Basic Welding .....  3
THIRD YEAR
First Semester ..... Units
AUTOT 284 Automotive Air Conditioning .....  3
Second Semester ..... Units
aUTOT 294 Lamp/Brake Adjustment/Cert Prep .....  3
FOURTH YEAR
First Semester Units
AT 10 Technical Computer Applications. .....  2
Second Semester ..... Units
ACRT 55 Spray Refinishing. .....  2
Total ..... 19
Recommended Elective: AT 130.
APPRENTICESHIP COOK - MAJOR \#9085
This curriculum is designed to fulfill the academic requirements of theAmerican Culinary Federation Institute's Apprenticeship Training Programfor Chefs. For those cooks who are employed full time and indentured as anapprentice by the San Joaquin Valley of American Culinary Association JointApprenticeship Committee.
CERTIFICATE OF COMPLETION
FIRST YEAR
First Semester Units
FN $1 \quad$ Principles of Food Preparation .....  3
FSM 35 Sanitation, Safety \& Equipment .....  2
Second Semester ..... Units
BT 131 Applied Accounting .....  3
SECOND YEAR
First Semester Units
FSM 25 Food \& Beverage Control .....  2
Second Semester ..... Units
FN 35 Nutrition \& Health, or FN 40 Nutrition ..... 3

## 92 Apprenticeship Diesel and Heavy-Duty Mechanics

THIRD YEAR
First Semester ..... Units
FSM 11 Food Service Supervision .....  2
Second Semester ..... Units
FSM 15 Food Production Management .....  2
Total 17
APPRENTICESHIP DIESEL AND
HEAVY-DUTY MECHANICS - MAJOR \#9100This curriculum is designed for the diesel and heavy-duty mechanic whois employed full time and indentured as an apprentice by the AutomotiveMechanics Joint Apprenticeship Committee.CERTIFICATE OF COMPLETION
FIRST YEAR
First Semester ..... Units
APP 360 Intro to Apprenticeship Training .....  0
Second Semester ..... Units
APP 361/3B Diesel \& Heavy-Duty Mechanics .....  0
SECOND YEAR
First SemesterUnits
APP 361/3B Diesel \& Heavy-Duty Mechanics .....  0
Second Semester ..... Units
APP 361/3B Diesel \& Heavy-Duty Mechanics .....  0
THIRD YEAR
First Semester ..... Units
AUTOT 282A Suspension and Wheel Alignment .....  3
Second Semester ..... Units
AUTOT 282B Automotive Braking Systems .....  3
FOURTH YEAR
First Semester ..... Units
WELD 1 Basic Welding .....  3
Second Semester ..... Units
AUTOT 284 Automotive Air Conditioning .....  3
Total 12
Recommended Elective: APP 19.
APPRENTICESHIP ELECTRONICS -
MAJOR \#9140This curriculum is designed for the electronics technician who is em-ployed full time and indentured as an apprentice by the Electronics JointApprenticeship Committee.
CERTIFICATION OF ACHIEVEMENT
FIRST YEAR
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
THIRD YEAR
First Semester ..... Units
EST 55A Digital Applications .....  8
Second Semester ..... Units
EST $52 \quad$ Circuit Analysis .....  3
FOURTH YEAR
First Semester ..... Units
AT 21 Occupational Safety and Health .....  2
Second Semester ..... Units
Elective* ..... 1.5
Total ..... 25.5
Recommended Elective: EST 57.*Contact Coordinator of Apprenticeship Training
APPRENTICESHIP MACHINE SHOP -
MAJOR \#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
AT 30 Industrial Math .....  3
DRAFT 12 Board Drafting Practices .....  3
Second Semester ..... Units
MFGT 37A Machine Shop (Turning) .....  5
SECOND YEAR
First Semester ..... Units
MFGT 37B Machine Shop-Milling .....  5
Second Semester ..... Units
AT 10 Technical Computer Applications. .....  2
CAM $10 \quad$ CNC Mill Programng \& Operation I .....  3

| THIRD YEAR |  |  |
| :---: | :---: | :---: |
| First Semester |  | Units |
| CAM 20 | CNC Mill Programng \& Operation II | ...... 6 |
| Second Semester |  | Units |
| CAM 40 | CNC Lathe Programng \& Operation.. | $\ldots$ |
| AT 11 | Basic Electricity .............................. | ..... 3 |
| APP 360 | Apprenticeship First Aid..... | .... 0 |
| FOURTH YEAR |  |  |
| First Semester |  | Units |
| CAM 30 | CNC Mill Programng \& Operation III. | $\ldots . . . . .6$ |
| Second Semester |  | Units |
| AT 120 | Industrial Science .... | ..... 3 |
| WELD 1 | Exploring Welding/Metals ..... | ..... 3 |
| Recommended Elective: APP 19. |  |  |
| APPRENTICESHIP PARTSCLERK - |  |  |
| MAJOR \#9260 |  |  |
| This curriculum is designed for the partsclerk who is employed full tim and indentured as an apprentice by the local Automotive Mechanics Joint Apprenticeship Committee. |  |  |
| CERTIFICATE OF COMPLETION |  |  |
| FIRST YEAR |  |  |
| First Semester |  | Units |
| AUTOT 9 | Automotive Essentials ....... | ........ 3 |
| Second Semester |  | Units |
| AT 130 | Industrial Math, and/or math test, Math 70 | $\ldots . . . .$ |
| SECOND YEAR |  |  |
| First Semester |  | Units |
| BA 10 | Introduction to Business ........ | $\ldots$ |
| Second Semester |  | Units |
| BA 40 | Supervision \& Leadership Skills ....... | ....... 3 |
| THIRD YEAR |  |  |
| First Semester |  | Units |
| ACCTG 4A | Financial Accounting................... | $\ldots$ |
| Second Semester |  | Units |
| AT 10 | Technical Computer Applications..... | ......... 2 |
| FOURTH YEAR |  |  |
| First Semester |  | Units |
| SPEECH 2 | Interpersonal Communication....... | ...... 3 |
| Second Semest |  | Units |
| APP 360 | Apprenticeship First Aid............... | ......... 0 |
| AT 21 | Occupational Safety .......... | ....... 2 |

Second Semester Units
EST 272 Industrial Motor Control .....  3
Total 22
Recommended Elective: APP 19.
APPRENTICESHIP WELDING - MAJOR \#9380
This curriculum is designed for the welder who is employed full time andindentured as an apprentice by the Welding/Machinist Joint ApprenticeshipCommittee.
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 Practices .....  3
Second Semester ..... Units
AT 130 Industrial Math .....  3
THIRD YEAR
First Semester ..... Units
AT 120 Industrial Science ..... 3
Second Semester ..... Units
AT 11 Basic Electricity .....  3
FOURTH YEAR
First Semester Units
Elective* ..... 3
Second Semester Units
WELD 56 Blueprint Reading for Welders Total 19
Recommended Elective: APP 19.
*Contact Coordinator of Apprenticeship Training
ARCHITECTURE - MAJOR \#6810
This curriculum is designed to prepare students for employment witharchitects, building contractors, building material companies, governmentagencies and degree programs in architecture.ASSOCIATE IN SCIENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester ..... Units
ARCH 10 Perspective Drawing .....  2
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 $20 \quad$ 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
First Semester Units
ARCH 30 Environmental Design .....  3
ARCH 31 Building Codes .....  3
ARCH 32 Strength of Material .....  3
ARCH 34 Advanced Arch CAD .....  3
Total 12
Second Semester ..... Units
ARCH 40 Environmental Design .....  3
ARCH 41A Office Practices .....  3
ARCH 42 Steel and Timber .....  3
ARCH 44 Arch Comp Rendering .....  3
AT 40 Preparing for Employment Opportunities. .....  3
Total 15

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 29 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 a certificate of achievement. For an associate in arts degree in art you must complete the 27 units as described above plus additional coursework requirements. See Notes $1 \& 2$ below.
REQUIRED CORE COURSES ..... Units
ART 3 Two-Dimensional Design .....  3ART 5ART 6ART 7
ART 4 Three-Dimensional Design .....  3
Art History 1 .....  3
Art History 2 .....  3
Beginning Drawing .....  3
Beginning Figure Drawing and Anatomy .....  3
In addition to the Core Courses:
SELECT A MINIMUM OF 9 UNITS:
TWO-DIMENSIONAL ART MAJORS must complete 2 courses (6 units) within
one of the following specialties: DRAWING, PAINTING, PRINTMAKING. In
addition, 1 course (3 units) must be selected from the 3-dimensional area
or Art History.
THREE-DIMENSIONAL ART MAJORS must complete 2 courses (6 units)
within one of the following specialties: CERAMICS, CRAFTS, JEWELRY AND
METALSMITHING, SCULPTURE, TEXTILE DESIGN. In addition, 1 course (3

units) must be selected from the 2-dimensional area or Art History. | TWO-DIMENSIONAL - MAJOR \#5201 |
| :--- |

In addition to the Core Courses:
SELECT A MINIMUM OF 9 UNITS:
TWO-DIMENSIONAL ART MAJORS must complete 2 courses (6 units) within one of the following specialties: DRAWING, PAINTING, PRINTMAKING. In addition, 1 course ( 3 units) must be selected from the 3-dimensional area or Art History.
THREE-DIMENSIONAL ART MAJORS must complete 2 courses (6 units) within one of the following specialties: CERAMICS, CRAFTS, JEWELRY AND METALSMITHING, SCULPTURE, TEXTILE DESIGN. In addition, 1 course (3 units) must be selected from the 2-dimensional area or Art History.

TWO-DIMENSIONAL - MAJOR \#5201

THREE-DIMENSIONAL - MAJOR \#5202

ART 10, 20 Beming and3-3
ART 12A, 12B Beginning and Intermediate Craft Studio 3
ART 22A Textile Design: Hand Papermaking.3
ART 32A Beginning Jewelry and Metalsmithing. ..... 3
3art
Notes: 1. An associate in arts degree in art will be awarded to any candidate
who successfully completes a total of 60 units which include associate
listed above.
36.
SUGGESTED SEQUENCE OF COURSES
FIRST YEAR
First Semester ..... Units
ART 3 Two-Dimensional Design .....  3
ART $5 \quad$ Art History 1 .....  3
ART $7 \quad$ Beginning Drawing. .....  3
Second Semester ..... Units
ART 4 Three-Dimensional Design .....  3
ART 6 Art History 2 .....  3
Art 8 Beginning Figure Drawing and Anatomy .....  3
SECOND YEAR
First and Second Semesters ..... Units
Choice of the following courses:
ART 9, 10, 11, 12A, 12B, 13, 14, 15, 16, 17, 18, 19, $20,21,22 \mathrm{~A}, 22 \mathrm{~B}, 23,24 \mathrm{~A}, 24 \mathrm{~B}, 24 \mathrm{C}, 24 \mathrm{D}, 25$, 32A, 32B, 35, 39B 55, 65. ..... 6
AUTOMOTIVE COLLISION REPAIR TECHNOLOGY formerly body and fender mechanic

- MAJOR \#8071
Training in this field is designed to prepare the student for employmentas an advanced apprentice trainee in body repairing, reconstruction fin-ishing.
ASSOCIATE IN SCIENCE AND CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester ..... Units
T
Occupational Safety \& Health. .....  2
WELD 2A Intro to Welding .....  5Second SemesterUnits
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
Second Semester ..... UnitsACRT 53B Advanced.AT 40 Preparing for Employment Opportunities 3
AT 120 Industrial Science .....  3
Total 11

Recommended Electives: ACRT 55; AUT0T 19, 54, 282A
Note: Associate degree requirements are listed on page 29.

## AUTOMOTIVE TECHNOLOGY - MAJOR \#8051

Satisfactory completion of this curriculum prepares the student for entrylevel 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).

## ASSOCIATE IN SCIENCE DEGREE AND

## CERTIFICATE 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
$\dagger$ AUT0T 51L Automotive Engine Laboratory .....  2
AUTOT 52 Automotive Electrical Systems .....  5
AUTOT 53 Engine Performance .....  .5
Total 20Units
AT 10 Technical Computer Applications .....  2
AT $130 \quad$ Industrial Math .....  3
**AUTOT 19 Work Experience (Coop), Occup ..... 2-4
AUTOT 55 Power Trains: Transmissions/Transaxles, Differentials, and Driveaxles .....  5
AUTOT 57 Automotive Heating, Ventilation, Air Conditioning, and Advanced Electronics. .....  5
Total 17-19
SECOND YEAR
First Semester ..... Units
AT $40 \quad$ Preparing for Employment Opportunitie .....  3
**AUTOT 19 Work Experience (Coop), Occup ..... 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 (Coop), Occup ..... 2-4
WELD 1 Exploring Welding and Metals .....  3
Electives .....  6

Recommended Electives: AT 31, 120; AUTOT 58; BA 20; ENGL 126; HLTH 1; PHOTO 5; POLSCI 10; SPEECH 2; PE.

* High School articulation (1 year)
** Students 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 successfully completes the above courses and at least 10 units of work experience (AUTOT 19). Associate in science degree requirements are listed on page 29.
CERTIFICATE OF COMPLETION ..... Units
Completion of any four (4) of the following courses:
AUTOT 261 Clean Air Car - Diagnosis and Repair .....  3
AUTOT 281A Auto Power Train System I .....  3
AUTOT 281B Auto Power Train System II .....  3
AUTOT 282A Suspension \& Wheel Alignment. .....  3
AUTOT 282B Automotive Braking Systems .....  3
AUTOT 283A Engine Performance \& Diagnosis .....  3
AUTOT 283B Electrical Systems. .....  3
AUTOT 284 Automotive Air Conditioning .....  3
GENERAL MOTORS ASEP PROGRAM - MAJOR \#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.

## ASSOCIATE IN SCIENCE DEGREE

## FIRST YEAR

Fall Semester Units
AT 10 Technical Computer Applications. .....  2
AT 130ATGM 54 Suspension, Steering, and Wheel Alignment 5
ATGM 56 Automotive Braking Systems .....  5
*AUTOT 9 Automotive Essentials .....  3
Electives .....  3Total 21
Spring Semester ..... Units
AT 31 Technical Report Writing. .....  3
ATGM 52 Automotive Electrical Systems .....  5
**AUTOT 19 Work Experience (Coop), Occup .....  4
Electives .....  6
Summer Semester ..... Units
ATGM 51 Principles of Engine Theory ..... 3
ATGM 51L Automotive Engine Laboratory ..... 2
**AUTOT 19 Work Experience (Coop), Occup .....  3
Electives ..... 1
Total 9
SECOND YEAR
Fall Semester ..... Units
ATGM 53 Engine Performance ..... 5
**AUTOT 19 Work Experience (Coop), Occup ..... 4
Electives ..... 6
Total 15
Units
Spring Semester ..... ,
ATGM 55 Power Trains: Transmissions/Transaxles, ..... 5
AT 120 Industrial Science .....  3Differentials, and Driveaxles
**AUTOT 19 Work Experience (Coop), Occup ..... 4
Electives ..... 3
Total 15
Summer SemesterUnitsUnits
ATGM 57 Automotive Heating, Ventilation, Air Conditioning, and Advanced Electronics ..... 5
Electives ..... 1
Recommended Electives: AUT0T 58; BA 20; ENGL 26; HLTH 1; PE; PHOTO 5; POLSCI 10; SPEECH 2.* High School articulation (1 year)**Students must complete at least 15 units of work experience.The associate in science degree will be awarded to any student who successfullycompletes the above course work and the associate degree requirements. AAssociatein science degree requirements are listed on page 29 of this catalog.)
BILINGUAL/CROSSCULTURAL SPANISH-ENGLISH MAJOR - MAJOR \#7690
ASSOCIATE IN ARTS DEGREE
FIRST 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
SPEECH 1 Intro to Public Speaking, or
SPEECH 2 Interpersonal Communication ..... 3
Physical Education .....  1
Second Semester Units
*SPAN 4 High-Intermediate Spanish .....  4
HLTH 1 Contemporary Health Issues .....  3
*CLS 17 or MUS 3, 20, or 27 ..... 3-2
GEOG 2, 4A, or 4B .....  3
MATH 103 Intermediate Algebra. ..... 3
Physical Education .....  1
Total ..... 6-17
SECOND YEAR
First Semester ..... Units
*CLS/SOC 14 Soc of Chicano Community .....  3GEOG 7 Physical Geog: Earth's Surface, or
GEOG 8 Phys Geog: Weather \& Climate. ..... 4
GEOL 1 Physical Geology, or
GEOL 2 Historical Geology ..... 4-3
*LING 10 Introduction to Language. .....  3
CHDEV 39 Child Development, or
PSY 2 General Psychology, orPSY 39 Child Development. 3
TA 12 Fund of Interpretation, or
TA 31A \& 31B Elem Techniques of Acting, or
Fund of Interpretation ..... 3
Total 19-20
Second Semester ..... Units
BIOL 1 Principles of Biology, or
BIOL 3 Natural Hist Approach to Biol .....  4
HIST 1 Survey of Western Civilization, or
HIST 2 Survey of Western Civilization. .....  3
ART 2 Art Appreciation, or
ART 5 Art History 1, orART $6 \quad$ Art History 2. 3
*CLS 21 Chicano Literature, or
ENGL 1B, 44, 45, 46, 48. ..... 3
POLSCI 2 American Government .....  3
Total 16English 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 ADMINISTRATION - MAJOR \#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 $10 \quad$ 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.
\#Electives 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: Students qualify for the certificate of acbievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 29 of the catalog, upon application, will be awarded the associate in science degree.


## BUSINESS ADMINISTRATION - MAJOR \#2050

Recommended transfer program for California State University, Fresno.
The following courses are required for the Associate in Arts degree.
ASSOCIATE 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 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 Managerial Accounting. .....  4
*ECON 1B Introduction to Microeconomics .....  3
*DS 23 Statistical Analysis .....  3*CSUF transfer courses required to enter the School of Business at CSUF**Transfers as an elective*** Satisfies CSUF'S GE, B.4, and FCC'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 29.
BUSINESS LAW - MAJOR \#2053
CERTIFICATE OF COMPLETION Units
BA 18 Business \& the Legal Environment .....  4
BA 20 Law \& the Legal System .....  3
BA/MGMT 10 Introduction to Business .....  3
BA/MGMT 31 Human Resource Management. .....  3

## ENTREPRENEURIAL VENTURES - MAJOR \#2041

This certificate is designed to provide skilled artisans and other tradesoriented 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

BA 50 Business Concepts ..... 1.5
BA 51 Survey of Entrepreneurship ..... 1.5
BA 52 Entrepreneurship Strategies. ..... 3
Total 6
HUMAN RESOURCE MANAGEMENT ASSISTANT - MAJOR \#2052
CERTIFICATE OF COMPLETION ..... Units
BA/MGMT 31 Human Resource Management. .....  3
BA/MGMT 33 Human Relations in Business. .....  3
Beginning Typing. .....  3

# Business \& Technology Program - Medical Administrative Assistant 

*BT 9*BT 25
*IS 25Computer Applications, orMicrosoft Office, orMicrosoft Office
$\qquad$Total 12

* students have the option of BT 9, BT 25 or IS 25BUSINESS ADMINISTRATION/MARKETING, RETAILMANAGEMENT - MAJOR \#2051
The program prepares current and future retail employees for the fastpaced, ever changing challenges in a competitive retail environment. Specificoccupational preparation is provided in the following program.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
First Semester ..... Units
BA/BT 5 Business Communications ..... 3
BT 115 Refresher Math .....  .3
IS 15 Computer Concepts .....  3
SPEECH 1 Introduction to Public Speaking ..... 3
Total 12
Units
Second Semester ..... 號
BA/MGMT 10 Introduction to Business ..... 3
BT 131 Applied Accounting ..... 3
MKTG/FM $10 \quad$ Principles of Marketing ..... 3
Total 9
Units
Third Semester ..... 埗
BA/MGMT 31 Human Resources Management ..... 3
BA/MGMT 33 Human Relations in Business. .....  3
MKTG/FM 14 Retailing ..... 3Total 9

Note: Students qualify for the certificate of acbievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 29 of the catalog, upon application, will be awarded the associate in science degree.

## BUSINESS \& TECHNOLOGY PROGRAM

## ASSOCIATE IN SCIENCE, CERTIFICATE OF ACHIEVEMENT, AND CERTIFICATE OF COMPLETION

A student may earn one certificate of achievement and eight 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 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 three five-minute timed writings are required for ALL certificates and for the associate in science degree.
CLERICAL EMPHASIS - MAJOR \#2061
REQUIRED CORE COURSES ..... Units
*BT 1 Beginning Typing. .....  3
*BT 2 Word Processing .....  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 122Skillbuilding. 1
Total 26
*Requirements will be waived if knowledge and skill in the subject matter can be demonstrated through testing.
ADMINISTRATIVE ASSISTANT EMPHASIS FORMERLY SECRETARIAL SCIENCE EMPHASIS - MAJOR \#2212Units
Required Core Courses ..... 26
BA/BT 5 Business Communications. .....  3
BT 3 Word Processing II. .....  6
BT 9 Computer Applications .....  3
BT 19 Work Experience (Coop), Occup. .....  2
Total 40
LEGAL ADMINISTRATIVE ASSISTANT EMPHASIS -MAJOR \#2102
Units
Required Core Courses ..... 26
BT 3 Word Processing II .....  6
BT 19 Work Experience (Coop), Occup .....  2
BT 140 Legal Office Administration .....  3
Total 37MEDICAL ADMINISTRATIVE ASSISTANTEMPHASIS - MAJOR \#2381
Units
Required Core Courses ..... 26
BT $3 \quad$ Word Processing II .....  6
BT 19 Work Experience (Coop), Occup .....  2
BT 43 Medical Office Vocabulary .....  1
BT 144 Medical Administrative Assistant .....  3
BT 148 Medical Insurance Forms .....  3

## 100 Business \& Technology - Medical Billing Clerk


BT $270 \quad$ Business Math \& 10 Key. ..... 2
BT 271 Business Grammar Fundamentals ..... 2
BT 272 Office Procedures. .....  1
BT 273 Filing .....  1
Total 25Note: Students must maintain an average GPA of 2.0; demonstrate the ability totype 40 words per minute with $97 \%$ accuracy; and key 110 correct strokesper minute on the ten-key calculator.
MICROSOFT WORD - MAJOR \#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 TRAINING
CERTIFICATE OF COMPLETION Hours
CTCTC 370 Office Assistant Applications (Major \#246V) ... ..... 600
CTCTC 376 General Office Techniques (Major \#206W) ..... 600
BUSINESS MANAGEMENT - MAJOR \#2181
ASSOCIATE IN SCIENCE DEGREECompletion of 27 units including 12 units of the required core coursesplus an additional 15 units of elective course are required for the associatein science degree.
CERTIFICATE OF ACHIEVEMENTA certificate of achievement in Business Management may be awardedfor the successful completion of 20 units. The 20 units may include anycombination of required core or elective courses listed below. A minimumgrade of "C" in each course is required.
REQUIRED CORE COURSES ..... Units
BA/BT 5 Business Communication ..... 3
BA/MGMT 10 Introduction to Business ..... 3
BA/MGMT 33 Human Relations in Business. ..... 3
*BA/MGMT 40 Supervision in Management, or BA/MGMT 43 Principles of Management ..... 3
Total 12
ELECTIVES
Units
BA18 Business \& Legal Environment ..... 4
BA 20 Law \& the Legal System ..... 3
BA 28 E-Law \& Ethics. ..... 3
BA $30 \quad$ Personal Finance ..... 3
BA/MGMT 31 Human Resource Management ..... 3
BA 34 Fundamentals of Investing. ..... 3
BA 35 Business Financial Management ..... 3
BA 38 Operation of Small Business .....  3
*BA/MGMT 40 Supervision on Management. .....  3
*BA/MGMT 43 Principles of Management. .....  3
BA 51 Survey of Entrepreneurship ..... 1.5
MKTG 10 .....  3
MKTG 11SalesmanshipMKTG 12 3
MKTG 14Financial Accounting.,
BT 131 Applied Accounting .....  3
IS 15 Computer Concepts .....  3
*Either BA/MGMT 40 or BA/MGMT 43 may be taken as a required course. Theother class option may be taken as an elective course.
Note: Associate degree requirements are listed on page 29.
CERTIFICATES OF COMPLETION
A certificate may be awarded for the successful completion of the courseslisted under each of the seven designated areas below. A minimum grade of" $C$ " in each course is required, except as noted:
1.Business Finance and Accounting - Major \#2031 Units
ACCTG 4A Financial Accounting. .....  4
ACCTG 4B Managerial Accounting .....  4
BA 35 Business Finance .....  3
2.Business Finance and Investments - Major \#2271 Units
BA 35 Business Finance. .....  3
BA 34 Investments .....  3
3. Human Relations and Communications - Major \#2510 UnitsBA/BT 5 Business Communications 3
BA/MGMT 33 Human Relations in Business. .....  3
4. Human Resources and Relations - Major \#2520 ..... Units
BA/MGMT 31 Human Resources Management .....  3
BA/MGMT 33 Human Relations in Business. .....  3
5.Management and Supervision - Major \#2182 UnitsBA/MGMT 40 Supervision and Leadership Skills. 3
BA/MGMT 43 Management and Tactical Planning .....  3
6.Personal Finance and Investments - Major \#2032 Units
BA $30 \quad$ Personal Finance. .....  3
BA 34 Investments .....  3
7. Small Business Management - Major \#2030 ..... Units
BA 38 Operation of the Small Business .....  3
BA 51 Survey of Entrepreneurship ..... 1.5

## 102 Cabinetmaking Technology

CABINETMAKING TECHNOLOGY -
MAJOR \#8311
This curriculum is designed to develop the student's ability in the funda-mentals of woodworking tools, machines, materials, and processes used inconstructing cabinets and furniture. The Cabinetmaking Technology programdirects its courses and training along practical lines as demanded by industryso that students, upon completion of their training, are better qualified toobtain employment in cabinetmaking or related occupations.
ASSOCIATE IN SCIENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester ..... Units
AT 10 Technical Computer Applications ..... 2
AT 130 Industrial Math ..... 3
CABNT 51A Basic Cabinet .....  5Total 10
Second Semester ..... Units
CABNT 51B Advanced Cabinet ..... 5
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
Total 8

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 29 of the catalog, upon application, will be awarded the associate in science degree.

## CHICANO-LATINO STUDIES

FORMERLY CULTURAL STUDIES, LA RAZA - MAJOR \#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.
ASSOCIATE IN ARTS DEGREE
REQUIRED 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 OPTIONS: 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/HIST 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.

## CHILD DEVELOPMENT - MAJOR \#5615

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

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.
REQUIRED 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 andEducation Programs 3
CHDEV 30 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 Music \& Movement Experiences forYoung Children2
CHDEV 10 Science \& Math Experiences for Young Children. ..... 2
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 18A Child Development Internship. ..... 2-4
CHDEV 18B Child Development Internship. ..... 2-4
CHDEV 19 Work Experience (Coop), Occup ..... 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 \& Education Programs ..... 3
CHDEV 40B Advanced Admin of Early Care \&
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 47 Emergent Literacy ..... 3
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 .....
Note: Courses designated with an (*) do NOT meet the requirements for coursework for the California Child Development Permit, which is required foremployment in State-funded child development programs. Courses takento fulfill the 24 units required by the Child Development Permit must focuspredominately 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 andEducation Programs 3
CHDEV 37A Early Childhood Programs and Practices .....  3
Child Development Course Options .....  2
Total ..... 10
SECOND YEAR
First Semester Units
Child Development Course Options .....  5
Second Semester ..... Units
CHDEV 37B Early Childhood Programs and Practices .....  3
Total 27

Note: An associate in science degree will be awarded on the successful completion of 60 units, including General Education requirements.
CHILD DEVELOPMENT ASSOCIATE TEACHER - MAJOR \#5614

A 14-unit certificate program designed for individuals who desire a shortterm intensive training program in child development. In a five-month 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.
CERTIFICATE OF COMPLETION ..... Units
CHDEV 3 Creative Experiences for Children. .....  3
CHDEV 6 Child Care Health and Safety .....  2
CHDEV 18A Child Development Internship, and/orCHDEV 18BChild Development Internship,and/orCHDEV 19 Work Experience (Coop), Occup 3
CHDEV 30 Child, Family and Community .....  3
CHDEV 39 CHDEV 150
Child Development, or Basic Child Development .....  3

## 104 Child Development - Family Child Care

## FAMILY CHILD CARE - MAJOR \#5571

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 |
| CHDEV 6 | 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 SEQU | UUENCE 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 5 |
| Second Semeste | er Units |
| CHDEV 3 | Creative Experiences for Young Children .............. 3 |
| CHDEV 6 | Child Health and Safety .................................... 2 |
| CHDEV 30 | Child, Family and Community........................... 3 |
|  | Total 8 |

## FOSTER CARE - MAJOR \#5580

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


Total 11

## Qualifications to Teach in Early Care and Education Programs

## Privately Operated Center Based Programs

Candidates may meet the California 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, 9, 10, 37A/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 Development Department recommends that students take Child Development 6, Child Health and Safety, 2 units (DSS*7). State law requires that an individual who bas completed Child Care Health and Safety Training must be on the premises of a child development center at all times. Child Development 6 fulfills this 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

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## 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 drafting - Major \#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 students, upon completion of their training, are better qualified to obtain employment in CADD or related occupations.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

## FIRST YEAR

First Semester ..... Units
AT 10 Technical Computer Applications. .....  2
CADD 14 Introduction to Computer Aided Drafting. .....  3
DRAFT 12 Board Drafting Practices .....  3
DRAFT 160 Mathematics of Drafting. .....  3
Total 11
Second Semester ..... Units
ARCH 20 Basic Graphics. .....  2
CADD 22 Mechanical Drawing I .....  3
CADD 24 Advanced Computer Aided Drafting. .....  3
CADD 26 Introduction to 3D Solid Modeling. .....  3
Total 11
SECOND YEAR
First Semester Units
AT 31 Technical Reports. .....  3
AT 120 Industrial Science .....  3
CADD 32 Mechanical Drawing II .....  3
CADD 36 Advanced 3D Solid Modeling .....  3
Total 12
Second Semester ..... Units
AT 40 Preparing for Employment Opportunities. .....  3
CADD 40 Civil Drafting Applications. .....  3

## 106 Computer Aided Manufacturing

CADD 42 Mechanical Drawing III. ..... 3
CAM 10 CNC Mill Programming \& Operation ..... 3Total 12
Recommended Elective: DRAFT 19.
Note: Students planning to receive the associate in science degree must meet theassociate in science degree requirements on page 29.
COMPUTER AIDED MANUFACTURING FORMERLY MANUFACTURING TECHNOLOGY \&
MACHINIST- MAJOR \#8271
The two-year A.S. degree/certificate Computer Aided Manufacturingprogram is designed for students who have a strong interest in hands-onexperience both in the classroom as well as in industry. Core courses ensurestudents with a knowledgeable foundation using Fresno City College for theComputer Aided Design (CAD) 2D and 3D, Computer Numerical ControlProgramming (CNC), Machine Operation, a variety of High Tech Materials,Computer Application and Computer Measuring Instrument. AutoCAD, Au-toCAD LT, Solid Works, Microsoft Office and MasterCAM software are currentlyused. The program is diverse: CNC Vertical Milling Centers, CNC Lathes andCNC Routers 3 axis and 5 axis. These software and machines give studentsthe most experiences possible, which will lead to more job opportunities inthe local workforce.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENTFIRST YEAR
First Semester ..... Units
AT 10 Technical Computer Applications .....  2
AT 130 Industrial Mathematics, or Elementary Algebra (or higher level)................. 3
CAM 10 CNC Mill Programming \& Operation I .....  3
DRAFT 12 Board Drafting Practices .....  3
Total 11Units
AT 21 Occupational Safety .....  2
CADD 14 Introduction to Computer Aided Drafting .....  3
CAM 20 CNC Mill Programming \& Operation II .....  .6
Total 11
SECOND YEARFirst SemesterUnits
CADD 24 Advanced Computer Aided Drafting .....  .3
CADD 26 Intro to 3D Solid Modeling .....  3
CAM 30 CNC Mill Programming \& Operation III .....  6Total 12

| Second S | 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 29.

## CONSTRUCTION - MAJOR \#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.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT <br> FIRST YEAR

First Semester Units
ARCH 21 Materials of Construction.................................... 3
AT 10 Technical Computer Applications.......................... 2
AT 21 Occupational Safety \& Health............................... 2
AT 130 Ind Math........................................................... 3
CONS 50A Basic Resident ................................................... 3 Total 13

Second Semester

Units

ARCH 22 Arch Drawing...................................................... 3
AT 31 Technical Reports................................................ 3
AT 40 Preparing for Employment Opportunities.............. 3
CONS 50B Basic Resident .................................................... 3
Total 12

## SECOND YEAR

First Semester Units
CONS 51 Resid Founds \& Framing.................................... 10
Total 10
Second Semester Units
CONS 53 Resid Ext \& Int Finishing ................................... 10
CONS 55 Roof Framing Systems ......................................... 3
Total 13
Recommended Electives: WELD 1; BT 1; CONST 19, 56, 57.
Note: Students qualify for the certificate of acbievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 29 of the catalog, upon application, will be awarded the associate in science degree.

## CRIMINOLOGY

## FORMERLY ADMINISTRATION OF JUSTICE

Criminology courses are designed for those students interested in law enforcement as a career. These programs offer course work leading to an associate in science degree, a certificate of achievement, or a certificate of completion in Criminology. There are four options:

1. Corrections - specialized training for those interested in careers in corrections.
2. Criminology - a transfer program designed for upper division work in law enforcement, corrections, or victimology.
3. Forensic Evidence - designed to provide specialized education for those students desiring a career as crime scene investigators, evidence technicians, or forensic evidence technicians. This option is also designed to provide those students who are pursuing careers in law enforcement the opportunity to broaden their knowledge and appreciation for the value that forensic evidence plays in the role of solving crime. This option will also serve as a primer for those students who wish to pursue a higher level of education in forensics at the university level. (Pending State Cbancellor's office approval.)
4. Law Enforcement - designed for students considering careers as police officers, sheriff's deputies, or highway patrol officers.

## CORRECTIONAL SCIENCE OPTION - MAJOR \#7731

This pattern has been endorsed by the Joint Apprenticeship Committee of the California Department of Corrections, California Youth Authority, and the California Peace Officer's Association as a program which would be of benefit to apprentices.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

## REQUIRED CORE COURSES Units

CRIM 6 Concepts of Criminal Law..................................... 3
+CRIM 13 The Constitution and Your Individual Rights........ 3
CRIM 15 Police Ethics...................................................... 3
CRIM 20 Introduction to Corrections .................................. 3
CRIM 21 Correctional Report Writing................................... 3
CRIM 23 Correctional Interviewing and Counseling ............ 3
CRIM 24 Control and Supervision in Corrections ........................................................ 3
CRIM 25 Legal Aspects of Corrections................................... 3
+*Ethnic Studies Any course listed below ......................................... 3
+ENGL 1A Reading and Composition................................... 4
+HLTH 1 Contemporary Health Issues ................................. 3
+SPANISH or
HMONG Any Level...........................................................-4-4
Total 37-38

## COURSE OPTIONS: SELECT ANY 16 UNITS <br> Units

CRIM 1 Introduction to Criminology ................................. 3
CRIM 5 Community Relations........................................... 3
CRIM 8 Criminal Investigation........................................ 3
CRIM 11 Juvenile Delinquency ........................................... 3
CRIM 18 Criminal Personalities ......................................... 3
CRIM 19 Work Experience (Coop), Occup ........................1-6
CRIM 36 Gangs and Corrections......................................... 3
+*Ethnic Studies Any course listed below ........................................ 3
+HMONG Any level............................................................... 4
HS 44 Drug Use: Physical and Psychological Effects........ 3
PSY 2 General Psychology.............................................. 3
PSY 16 Abnormal Psychology .......................................... 3
+SPANISH Any level.............................................................-4
WSTS 10 Changing Roles of Women ................................... 3
CERTIFICATE OF ACHIEVEMENT
REQUIRED CORE COURSES Units
CRIM 6 Concept of Criminal Law ...................................... 3
CRIM 20 Introduction to Corrections ................................. 3
CRIM 21 Correctional Report Writing.................................. 3
CRIM 23 Correctional Interviewing and Counseling ............ 3
CRIM 24 Control and Supervision in Corrections ................. 3
CRIM 25 Legal Aspects of Corrections.................................. 3
Total 18
COURSE OPTIONS: SELECT ANY 16 UNITS Units
CRIM 1 Introduction to Criminology ................................ 3
CRIM 5 Community Relations......................................... 3
CRIM 8 Criminal Investigation......................................... 3
CRIM 11 Juvenile Delinquency ........................................... 3
CRIM 18 Criminal Personalities ......................................... 3
CRIM 36 Gangs and Corrections......................................... 3
*Ethnic Studies Any Course Listed Below....................................... 3
HMONG Any Level............................................................. 4
PSY 2 General Psychology............................................. 3
PSY 16 Abnormal Psychology .......................................... 3
SPANISH Any Level..........................................................-4
WSTS 10 Changing Roles of Women ................................... 3

## CERTIFICATE OF COMPLETION

REQUIRED CORE COURSES Units
CRIM 20 Introduction to Corrections ................................. 3
CRIM 21 Correctional Report Writing................................... 3
COURSE OPTIONS: 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 AFRAM 1, 2, or 4; AMIND 31, 32, 33, or 34; ASAMER 1 or 15; or CLS 11, 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 bave been mandated by the state as core courses in the Correctional Science Option.

## CRIMINOLOGY OPTION - MAJOR \#7700

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

 TOTAL UNITS REQUIRED .......................................... 39 REQUIRED CORE COURSES Units| AT 10 | Technical Computer Applications, or |
| :---: | ---: |
| IS 12 | Computer Literacy.......................................2-3 |

CRIM 1 Introduction to Criminology ..... 3
CRIM 4 Principles and Procedures of the Justice System ..... 3
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
*AFRAM 1 African-American Culture, or
*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
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 suc-cessfully completes a minimum of 60 units. The 60 -unit minimum mustinclude associate degree requirements and 39 units of course work listedabove.
FORENSIC EVIDENCE OPTION+
ASSOCIATE IN SCIENCE DEGREE TOTAL UNITS REQUIRED ..... 50
REQUIRED CORE COURSES ..... Units
CRIM 1 Introduction to Criminology ..... 3
CRIM 3 Legal Aspects of Evidence. ..... 3
CRIM 8 Criminal Investigation. ..... 3
CRIM 9 Crime Scene Forensic Evidence .....  3
CRIM 12 Police Report Writing .....  3
CRIM 12A Criminal Justice Report Writing .....  1
ANTHRO 1 Physical Anthropology .....  3
*\#BIOL 1 Principles of Biology .....  4
BIOL 8A Biotechnology .....  4
CADD 14 Introduction to Computer Aided Drafting. .....  3
*\#CHEM 3A Introduction to General Chemistry .....  4
*\#ENGL 1A Reading and Composition .....  4
*IS 12 Computer Literacy. .....  3
*\#PHOTO 5 Introduction to Photography .....  3
Total 44
COURSE OPTIONS: SELECT 6 UNITS
CRIM 18 Criminal Personalities .....  3
FIRET 13 Arson and Fire Technology .....  3
*\#PSY 2 General Psychology. .....  3
PSY 16 Abnormal Psychology .....  3
*Also satisfies general education and graduation requirement.
\#Transferable to CSU system to fulfill general education requirement.
Note: An associate in science degree will be awarded to any candidate who suc-cessfully complete a minimum of 60 units. The 60 units must includeassociate degree requirements and 50 units of course work listed above.
CERTIFICATE OF ACHIEVEMENT
REQUIRED COURSES ..... Units
CRIM 1 Introduction to Criminology .....  3
CRIM 3 Legal Aspects of Evidence .....  3
CRIM 8 Criminal Investigation. .....  3
CRIM 9 Crime Scene Forensic Evidence .....  3
CRIM 12 Police Report Writing. .....  3
CRIM 12A Criminal Justice Report Writing .....  1
ANTHRO 1 Physical Anthropology .....  3
CADD 14 Introduction to Computer Aided Drafting. .....  3
*IS 12 Computer Literacy .....  3
*\#PHOTO 5 Introduction to Photography .....  3
Total 28
*Also satisfies general education and graduation requirement.
\#Also fulfills degree or transfer requirement.
+Pending State Chancellor's Office approval.
LAW ENFORCEMENT OPTION - MAJOR \#8872
ASSOCIATE IN SCIENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENT45
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 OPTIONS: 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
*SOC 1A
General Psychology ..... 3
Introduction to Sociology ..... 3
*SOC 2 American Minority Groups ..... 3
*WSTS $10 \quad$ Changing Roles of Women ..... 3
*Also fulfills degree or transfer requirementsNote: An associate in science degree will be awarded to any candidate who suc-cessfully completes a minimum of 60 units. The 60 -unit minimum mustinclude associate degree requirements and 45 units of course work listedabove.

## Students Transferring from the Police Academy

Candidates who have completed the Basic Academy or the Reserve Level 1 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 TRAINING OPTION - MAJOR \#8923

Non-affiliated students who intend to undertake training through the Police Academy can enhance their chances of success by taking the PreAcademy Certificate of Achievement program listed below.


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 achievementprogram 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.

## CULINARY ARTS

BASIC CULINARY ARTS - MAJOR \#5684

| CERTIFICATE OF COMPLETION |  | Units |
| :---: | :---: | :---: |
| FSM 35 | Food Serv, Sanitation, Safety \& Eqpt .. | ........ 2 |
| FSM 144 | Presenting Serv for Food Serv Prof | ........ 2 |
| FSM 146 | Elem Food Serv Computation I ..... | ........ 1.5 |
| FSM 160 | Basic Skills: Basic Foods.................. | ............. 3 |
|  |  | Total 8.5 |

INTERMEDIATE CULINARY ARTS - MAJOR \#5685
CERTIFICATE OF COMPLETION ..... Units
fN 1 Prin of Food Prep. .....  3
FN 35 Nutrition \& Health .....  3
FSM 147 Elem Food Serv Comp II. ..... 1 .5
Tota ..... 7.5
ADVANCED CULINARY ARTS - MAJOR \#5686
CERTIFICATE OF COMPLETION ..... Units
FSM 11 Food Serv Super .....  2
FSM 15 Food Production Mgmt .....  2
FSM 25 Food \& Beverage Purchase \& Control .....  2
FSM 38 Quality Food Prep. .....  3
FSM 149 Food Service Internship .....  3
Total 12
DANCE - MAJOR \#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 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.
ASSOCIATE IN ARTS DEGREE
TOTAL UNITS REQUIRED ..... 33-37
REQUIRED CORE COURSES ..... Units
DANCE 12 or
DANCE 13* Ballet/Intermediate Ballet .....  2
DANCE 14 or
DANCE 15* Beg/Int Jazz Dance Technique ..... 1
DANCE 20A Modern Dance Composition .....  3
DANCE 20B Intermediate Modern Dance Composition .....  3
DANCE 21 Dance Workshop Performance ..... 2-4
DANCE 22 Dance Theatre Performance. ..... 2-4
DANCE 30 Dance Appreciation .....  3
MUS 3 Music Fundamentals. ..... 3
PE 17 Hatha Yoga, or DANCE 9 Dance Conditioning .....  1
Total 20-24

* Class level dependent on entry-level experience.
NONTRANSFER (PROFESSIONAL) PROGRAM
Students planning a career in dance upon leaving Fresno City Collegeare urged to complete additional courses in physical education, music andtheatre arts.
REQUIRED COURSES ..... Units
MUS 12 Music Appreciation. .....  3
PE 20 Care and Prevention of Athletic Injuries ..... 3
At least one of the following courses:
TA 12 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 require-ments listed on page 29 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 ..... Units
ART 2 Art Appreciation ..... 3
ART 3 Two-Dimensional Design. ..... 3
ART 4 Three-Dimensional Design .....  3
BIOL 20 Human Anatomy. ..... 4
DANCE 9 Dance Conditioning ..... 1
DANCE 10 Modern Dance .....  1
DANCE 11 Introduction to Social Dance. ..... 1

DANCE 12
Beginning Ballet ... 1
DANCE 13 Intermediate Ballet .............................................. 1
DANCE 14 Beginning Jazz Dance Technique.......................... 1
DANCE 15 Intermediate Jazz Dance ...................................... 1
DANCE 16 Beginning Tap Dance.......................................... 1
DANCE 17 Beginning Mexican Folklorico Dance................... 3
DANCE 18 Intermediate Tap Dance...................................... 1
DANCE 21 Dance Workshop Performance ..........................2-4
DANCE 22 Dance Theatre Performance..............................-4
DANCE 23 Selected Topics in Dance Workshop.....................2-4
DANCE 24 Selected Topics in Dance Theatre .......................1-4
DANCE 27 Advanced Mexican Folklorico Dance..................... 3
MUS 12 Music Appreciation............................................... 3
PE 17 Hatha Yoga ......................................................... 1
PE 20 Care and Prevention of Athletic Injuries ................ 3

## DENTAL HYGIENE - MAJOR \#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 for patient care in the dental office. Completion of the program leads to an associate in science degree. After completing the program and passing the 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 2A or 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 with a "C" or better prior to beginning the program.

In addition, PSY 2 is a course prerequisite to DH 7A and SOC 1A is a course prerequisite to $D H 7 B$ (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.

## ASSOCIATE IN SCIENCE DEGREE

Dental Hygiene Course Sequence (must be completed with a grade of "C" or better.)

## FIRST YEAR

First Semester
Units
DH 1A Oral Biology....................................................... 2
DH 3A Pre-Clinical Dental Hygiene Tech......................... 4
DH 4 Oral Radiography................................................ 4
DH 10 Head \& Neck Anatomy ......................................... 2
Total 12

Second Semester
Units
DH 1B General \& Oral Pathology..................................... 4
DH 2 Dental Materials \& Assisting .................................. 2
DH 5A Clinical Dental Hygiene....................................... 3
DH 6A
DH 8A
DH 11
DH 12

SECOND YEAR
First Semester Units
DH 1C Periodontology ....................................................... 2
DH 3B Dental Specialties............................................... 1
DH 5B Clinical Dental Hygiene ...................................... 5
DH 6B Pharmacology..................................................... 3
DH 7A Community Dental Health I ................................. 2
DH 13 Clinical Seminar Topics II.................................... 1
Total 14
Second Semester
Units
DH 1D Applied Periodontics............................................. 1
DH 5C Clinical Dental Hygiene ....................................... 5
DH 7B Community Dental Health II................................ 1
DH 8B Practice \& Financial Management ....................... 2
DH 9 Nutrition in Dentistry........................................... 1
DH 14 Clinical Seminar Topics III................................... 1
Total 11
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 bealth career counselor every semester for current information.

DRAFTING - SEe computer aided drafting and DESIGN

ELECTRICIAN - see electrical systems
technology

## ELECTRICAL SYSTEMS TECHNOLOGY

- FORMERLY ELECTRONIC TECHNOLOGY - MAJOR \#8171

Electrical Systems Technology provides an opportunity for students to prepare for employment in the electronics/electrical industry. Specific occupational preparation is provided in the following program.


Note: An associate in science degree will be awarded to any candidate who successfully completes a minimum of 60 units. The 60 unit minimum must include associate degree requirements and 46 units of course work listed above.

## CISCO CERTIFICATION - MAJOR \# 8174

This option is to prepare students for the CISCO Certified Network Associate (CCNA) certification test. By completing this option, a student will have basic knowledge 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

## CISCO CCNP PREPARATION - MAJOR \# 8165

This option is to prepare students for the CISCO Certified Networking Professional (CCNP) certification test. By completing this option, a student will have advanced knowledge of networking hardware, including routers and switches.
CERTIFICATE OF COMPLETIONEST 65 Advanced Routing Protocols 3
EST 66 Remote-Access Network .....  3
EST 67 Multi-Layer Switching. .....  3
EST 68 Network Troubleshooting .....  3
INDUSTRIAL CONTROL SYSTEMS - MAJOR \#8173
CERTIFICATE OF COMPLETION ..... Units
AT 10 Technical Computer Applications .....  2
EST 72 Industrial Motor Control .....  3
EST 73 Industrial Electronic Fundamentals ..... Total 8
NETWORKING/COMPUTER TECHNICIAN -
MAJOR \# 8172This option is designed to meet the training needs for qualified entry-levelmicrocomputer and networking technicians.ASSOCIATE IN SCIENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENTTOTAL UNITS REQUIRED28
REQUIRED CORE COURSES ..... Units
*BT 20 Resume/Interview ..... 1.5
*BT 21 Working Relationships ..... 1.5
BT 112/ENGL 159 Business English .....  2
EST/IS 19 Work Experience (Coop), Occup .....  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 Computer Concepts .....  3
**IS 17 Data Communications .....  3
IS 22 Computer Operating Systems .....  3
IS 30A Fundamentals of Networking .....  4
Total 31.5
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 Semester ..... Units
*BT $20 \quad$ Resume/Interview ..... 1.5
*BT 21 Working Relationships .....  1.5
BT112/ENGL 159 Business English .....  2
EST/IS 19 Work Experience (Coop), Occup .....  2
EST 55A Digital Concepts .....  3
IS 22 Computer Operating Systems .....  3
IS 30A Fundamentals of Networking ..... 4
Total 17
*AT 40 can be substituted for BT 20 and BT 21. **EST 57 may be substituted for IS 17. Note: Associate degree requirements are listed on page 29.

## ENGINEERING - MAJOR \#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.

## ASSOCIATE IN SCIENCE DEGREE

First Semester
Units
ENGR 2 Graphics ............................................................. 4
MATH 5A Math Analysis I.................................................... 4
CHEM 1A General Chemistry.............................................. 5
ENGR 10 Intro to Engineering ............................................ 2
General Education ......................................................................... 2
Total 17
Second Semester Units
CSCI 20 Programming Concepts \& Method I ...................... 2
MATH 5B Math Analysis II ................................................. 4
*CHEM 1B General Chemistry.............................................. 5
General Education ........................................................................... 3
PHYS 4A Physics for Scientists \& Engineers ......................... 4
Total 18
Third Semester
Units
MATH 6 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 4 Engineering Materials.......................................... 3
General Education ........................................................................... 4
Total 18

Notes: 1. See page 36 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 - MAJOR \#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.
ASSOCIATE IN ARTS DEGREE
MAJOR CORE
FIRST YEAR
First Semester Units
ENGL 1A Reading and Composition .................................... 4
Total 4
Second Semester
Units
ENGL 1B Introduction to the Study of Literature .................. 3
ENGL 3 Critical Reading and Writing............................... 3
Total 6

## MAJOR COURSE OPTIONS

## 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 Classic Myths ..................................................... 3
ENGL 44A World Literature ................................................ 3

## 114 Environmental Technology

| ENGL 44B | World Literature |
| :---: | :---: |
| ENGL 45 | Contemporary World Literature. |
| 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 World War I $\qquad$ 3 |
| ENGL 48B | An Introduction to American Literature from <br> World War I to the Present. $\qquad$ |
| LING 10 | Introduction to Language.................................. 3 |
| Note: An as who su requi Associ requi | arts degree in English will be awarded to any candidate completes a total of 60 units which include associate degree nd a minimum of 22 units of course work as listed above. requirements are listed on page 29. General Education or transfer certification are listed on page 36. |

## ENVIRONMENTAL TECHNOLOGY -

## MAJOR \#8151

## ASSOCIATE IN SCIENCE DEGREE

## FIRST YEAR

First Semester ..... Units
AT 31 Technical Reports .....  .3
AT 130 Industrial Math ..... 3
ENVT 51 Intro to Environmental Technology ..... 3
*SPEECH 1 Intro to Public Speaking ..... 3
Social or Behavioral Science .....  3
Total 15
Second SemesterUnits
CHEM 3A Intro to General Chemistry ..... 4
ENVT 52 Industrial Pollution ..... 3
GEOL 1 Physical Geology .....  4
POLSCI 2 American Government or
American Institution ..... 3
Humanities .....  3
Physical Education .....  1
Total 18
SECOND YEARFirst SemesterUnits
BIOL 51 Elem Human Anatomy and Physiology ..... 4
ENVT 53 Health Effects. ..... 3
ENVT 54 Hazardous Waste Management Applications ..... 4
AT 10 Technical Computer Applications .....  2
Physical Education ..... 1
Total 14Units
ENVT 55 Safety and Emergency Response ..... 4
ENVT 56 Hazardous Materials Management Applications. .....  4
BA 10 Intro to Business. .....  3
Elective ..... 3
*Speech 1 or 2 if on a 4-year transfer track.
**Math 103 if on a 4 -year transfer track.
***English 1A if 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
Safety and Emergency Response .....  4
Hazardous .....  4
FASHION MERCHANDISING
HOME ECONOMICS/MARKETING - MAJOR \#2391
This curriculum is designed to prepare students for initial employment andadvancement in the field of Fashion Merchandising. It also prepares studentsfor upper divisional course work towards a bachelor's degree.
ASSOCIATE IN SCIENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENT
REQUIRED CORE COURSES ..... Units
FM 27 Introduction to Fashion Industry .....  3
FM 22 Fashion Analysis .....  3
FM 25 Professional Image .....  3
FM 26/TA 16 Fashion History .....  3
*FM 19 Work Experience (Coop), Occup .....  2
FM/HEC 20 Textiles .....  3
FM 28 Visual Merchandising .....  3
FM 21 Salesmanship .....  3
FM 29 Modeling and Fashion Promotion .....  3
FM/MKTG 14 Retailing .....  3
Total 29
COURSE OPTIONS: SELECT 6 UNITS ..... Units
HEC $1 \quad$ Careers and Professional Development in Home Economics .....  3
HEC 24 Beginning Sewing .....  3
HEC 26 Intermediate Sewing .....  3
MKTG 10 Marketing .....  3
MKTG 12 Advertising .....  3
BT 20 Resume/Interview .....  1.5
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 and 126or 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 course options with 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 (Coop), Occup ..... 1
Total 7
SECOND YEAR
First Semester ..... Units
FM 20 or HEC 20 Textiles. ..... 3
FM 28 Visual Merchandising ..... 3
FM 19 Work Experience (Coop), Occup ..... 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 MERCHANDISING
MARKETING/HOME ECONOMICS - MAJOR \#2151
ASSOCIATE IN SCIENCE DEGREE ANDCERTIFICATE OF ACHIEVEMENT
REQUIRED CORE COURSES ..... Units
FM 22 Fashion Analysis ..... 3
FM 20 Textiles. ..... 3
FM 14 Retailing ..... 3
FM 28 Visual Merchandising ..... 3
*FM 19 Work Experience (Coop), Occup ..... 2
HEC 7 Interior Design ..... 3
FM 21 Salesmanship .....  3
COURSE OPTIONS - SELECT 3 UNITS ..... Units
MKTG 10 Marketing .....  3
MKTG 12 Advertising .....  3
HEC 24 Beginning Sewing .....  3
HEC 26 Intermediate Sewing .....  3
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 29.
3. General Education requirements for transfer certification are on page 36.

## FIRE TECHNOLOGY - MAJOR \#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.

## ASSOCIATE IN SCIENCE DEGREE AND

CERTIFICATE OF ACHIEVEMENT

## REQUIRED 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 OPTIONS: SELECT 12 UNITS Units
FIRET 6 Hazardous Materials ........................................... 3
FIRET 8 Fire Hydraulics ................................................... 3
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 132 Emergency Medical Tech-Paramedic.................... 8
*FIRET 130 carries a value of up to 30 units; bowever, only 6 units can be applied to the associate in science degree and certificate of achievement.
**FIRET 132 carries a value of 30 units; bowever, only 8 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.

## 116 Food and Nutrition

Note: The certificate of achievement requires completion of the major (23 units) and 12 units of the recommended course options with a GPA of 2.0 or better: The associate degree additionally requires completion of the requirements listed in the Graduation Requirements section of this catalog.


| 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 |
| Options ................................................................. 6 |  |
|  | Total 12 |

FOOD AND NUTRITION - MAJor \#5682


Note: AS degree: The Food and Nutrition major consists of 38-41 units as indicated above. Students must complete the Food and Nutrition major and associate degree requirements listed on page 29. General Education requirements for transfer certification are on page 36.

## DIETARY AIDE - MAJOR \#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

FN 40 Elementary Nutrition.......................................... 3
FN 45 Nutrition and Diet Therapy................................... 3
FSM 35 Sanitation, Safety and Equipment ........................ 2
FSM 19 Work Experience (Coop), Occup .......................... 1
Total 9

## DIETETIC SERVICE SUPERVISOR - MAJOR \#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 251.

## CERTIFICATE OF ACHIEVEMENT (ONLY)

REQUIRED CORE COURSES Units
FN 40 Nutrition............................................................ 3
FN 45 Nutrition and Diet Therapy.................................. 3
FSM 11 Food Service Supervision ..................................... 2
FSM 15 Food Production Management............................. 2
FSM 19 Work Experience (Coop), Occup ........................1-4
FSM 35 Food Service Sanitation, Safety
and Equipment .................................................. 2
Computer Concepts ............................................. 3
Total 16-19
$\begin{array}{ll}\text { ELECTIVES Units } \\ \text { FN } 1 & \text { Principles of Food Preparation ................................ } 3\end{array}$
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.

## SUGGESTED SEQUENCE OF COURSES

First Semester Units
FSM 35 Sanitation, Safety and Equipment ........................ 2
FSM 15 Food Production Management............................. 2
FSM 19 Work Experience (Coop), Occup ........................1-4
FN 40 Nutrition............................................................ 3
Total 8-11
Second Semester Units
FN 45 Nutrition and Diet Therapy................................... 3
FSM 19 Work Experience (Coop), Occup ........................2-4
FSM 11 Food Service Supervision or
BA 31 Human Resources Management....................2-3
Total 7-10
Note: Occupational work experience must accompany each of the following courses in the program: FSM 35, 15, 45, 11. Additional units of FSM 19 may be required if a student lacks 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 list for 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 $1 \quad$ 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
SOC 1A Intro to Sociology ................................................ 3
$\begin{aligned} \text { MATH } 101 & \text { Elementary Algebra, or } \\ \text { MATH } 103 & \text { Intermediate Algebra...................................... } 3\end{aligned}$
Computer Class .......................................................................... 3

## FOOD SERVICE MANAGEMENT -

## MAJOR \#5691

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.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT REQUIRED CORE COURSES <br> Units <br> ACCTG 4 A Financial Accounting, or

BT 131 Applied Accounting 3-4
BA 18
Business and the Legal Environment. ... 4
ECON 1B Intro to Microeconomics....................................... 3
FN 1 Principles of Food Preparation ............................. 3
FN 35
FN 40
FSM 11
FSM 15
FSM 19
FSM 25
FSM 38
FSM 35

IS 15
MKTG 10
Nutrition and Health, or
Nutrition ... 3
Food Service Supervision ..................................... 2
Food Production Management............................. 2
Work Experience (Coop), Occup ........................1-4
Food and Beverage Purchasing and Control.......... 2
Quantity Food Preparation .................................. 3
Food Service Sanitation, Safety and Equipment. .. 2
Computer Concepts .............................................. 3
Marketing .......................................................... 3
Total 34-38
4 units electives; 20 units General Education
Note: Associate degree requirements are listed on page 29.

## CHILD NUTRITION - MAJOR \#5692

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.

## CERTIFICATE OF ACHIEVEMENT

 REQUIRED CORE COURSES UnitsFN 35 Nutrition and Health........................................... 3
FSM 35 Food Service, Sanitation, Safety $\begin{array}{ll}\text { and Equipment .............................................. } 2\end{array}$
FSM 160 Basic Skills: Basic Foods........................................ 3
FSM 162 Menu Planning for Children's Nutrition................ 3
IS 15 Computer Concepts .............................................. 3
Total 14
ELECTIVES: SELECT 10 UNITS Units
BT 10 Records Management .......................................... 3
CHDEV 34 Creative Cooking with Children............................ 1
FN 1 Principles of Food Preparation ............................. 3
FN 42 Child Nutrition................................................... 3
FSM 19 Work Experience (Coop), Occup ........................1-4

## FSM 38 Quantity Foods Preparation................................. 3

FSM 11 Food Service Supervision ..................................... 2
FSM 15
FSM 25
Food Production Management .. 2

Food and Beverage Purchasing and Control 2

## GRAPHIC COMMUNICATIONS - FORMERLY

PRINTING TECHNOLOGY AND REPROGRAPHICS - MAJOR \#8332
This curriculum is for the student considering employment in graphic communications production. Completion of the program will provide entrylevel skills and a general understanding of production techniques ranging from computerized layout through output in print media, world wide web, interactive multimedia products, and repurposing work for distribution.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

FIRST YEAR
First Semester Units
GRC 5 Intro Macintosh Computer ................................... 1
GRC 10 Intro Graphic Communications............................ 2
GRC 20 Desktop Publishing .............................................. 3
GRC 41 Visual Communications ....................................... 3
Total 9
Second Semester Units
GRC 12 PageMaker/Intro Graphic Layout.......................... 3
GRC 15 Web Page Construction $1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ 4 ~ 4 ~$
GRC 18 Graphic Production Methods 1.............................. 3
Total 10
SECOND YEAR
First Semester Units
GRC 17 Adobe Illustrator/Illus Software............................ 3
GRC 22 Multimedia 1...................................................... 4
GRC 30 Quark XPress/Prof. Publishing.............................. 3
GRC 54 Math for Graphic Communication ....................... 3
Total 13
Second Semester Units
AT 40 Preparing for Employment Ops............................. 3
GRC 14 Adobe Acrobat..................................................... 3
GRC 16, Projects/Web2, or
GRC 21 Production Methods 2,or
GRC 23 Multimedia 2. .. 4

Total 10
Recommended Electives: BT 6; GRC 13, 27, 39A, 40A; AT 10; MKTG 11; РНОТО 10, 22.

## GRAPHIC DESIGN OPTION - MAJOR \#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 <br> 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/W Photo ............................................. 3 |
| PHOTO 12 | Photoshop for Photographers ............................ 3 |
|  | Total 9 |
| Second Semester | er Units |
| ART 40B | Advanced Graphic Design ................................. 1.5 |
| AT 40 | 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 - MAJOR \#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.


## HEALTH INFORMATION TECHNOLOGY

FORMERLY MEDICAL RECORD TECHNOLOGY - MAJOR \#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 management, 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 student to the Health Information Technology program, the student must submit evidence of physical examination by a licensed physician.

## ASSOCIATE IN SCIENCE DEGREE

FIRST YEAR
First Semester Units
BIOL 151 Anatomy \& Physiology..................................... 4
HIT 1 Introduction to Health Care Records................... 3
HIT $10 \quad$ Medical Terminology..................................... 3
Is 15 Computer Concepts........................................ 3
Total 13
Second Semester Units
HIT 4 Disease Process............................................... 3
HIT 5 Introduction to Coding..................................... 3
HIT 12 Health Information in Alternative Settings........... 2

MA 2 Pharmacology............................................ 3

## SECOND YEAR

First Semester
Units
HIT 2 Legal Aspects of Health Information ................... 2
HIT 3 Quality Improvement....................................... 2
HIT 7 Directed Practice ........................................... 5
HIT 9 Hospital and Health Statistics........................... 2
HIT 11 CPT Coding ............................................... 2
Total 13
Second Semester Units
HIT 6 Coding and Reimbursement.............................. 3
HIT 7 Directed Practice .......................................... 5
HIT 8 Health Information Management and
Supervision................................................. 3
Elective ............................................................. 3
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 (RHIT) exam.
Notes: 1. BIOL 24 or BIOL 20 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 soffware, 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 - MAJor \#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.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

## REQUIRED CORE COURSES Units

HEC 1 Professional Development \&
Careers in Home Economics ............................ 3
FN 45
Nutrition \& Diet Therapy. .. 3
FN $40 \quad$ Nutrition, or
FN 35 Nutrition and Health........................................... 3
HEC 7 Interior Design ................................................... 3
Total 12

## 120 Human Services

COURSE OPTIONS: 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 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 AS degree will be awarded on the successful completion of 60 units. (See page 29 for associate degree requirements.) General Education re- quirements for transfer certification are on page 36.
SUGGESTED SEQUENCE OF COURSES
FIRST YEAR
First Semester Units
HEC 1 .....  3
Option (select one) FN 33, FN 41, or FN 43 .....  2
Second Semester ..... Units
FN 45 .....  3
Option (select one) from the Child \& Family Studies courses:CHDEV/PSY 38, CHDEV/PSY 39,CHDEV/FN 42, or HEC/SOC 32 3
SECOND YEAR First Semester Units
FN 40 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 field. Counseling.

## HUMAN SERVICES

## ALCOHOLISM AND DRUG ABUSE COUNSELING <br> OPTION - MAJOR \#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

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

## ASSOCIATE IN SCIENCE DEGREE AND

CERTIFICATE OF ACHIEVEMENT
REQUIRED CORE COURSES Units
HS/SOC 10 Introduction to Aging Studies................................ 3
HS 18 Alcohol and Drug Counseling:
Personal and Professional Growth.................... 2
Work Experience (Coop), Occup .......................... 6
Introduction to Social Welfare.............................. 3
Fund of Interviewing and Counseling.................... 3
Alcohol and Drug Abuse Counseling:
Law and Ethics, Prevention, Education, and Outreach and Referral.
HS 42 Introduction to Alcohol and Drug Counseling........... 3
HS 43 Alcohol and Drug Abuse Counseling: Case Management. ... 3
HS 44 Drug Use: Physical and Psychological Effects........ 3 Total 29
COURSE OPTIONS: SELECT 7 Units Units

| AFRAM 1 | African-American Culture, or |
| :---: | :---: |
| AMIND 34 | American Indian in Contemporary Society, or |
| CLS/S0C 14 | Sociology of Chicano Community..................... 3 |

CHDEV 5 Parenting Skills................................................... 3
CHDEV/PSY 12 Child Abuse........................................................ 2
HS/SOC 2 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
SOC 1A Introduction to Sociology, or
SOC 160 Basic Sociology................................................... 3

| $\begin{aligned} & \text { SOC 1B } \\ & \text { SOC } 32 \end{aligned}$ |  |
| :---: | :---: |
|  | Courtship, Marriage, and Divorce: Family and |
|  | Interpersonal Relatorships |
| WSTS 10 | 0 Changing Roles of Wo |
| WSTS 42 | 2 Women and Chemical |
| Eligibility for ENGL 125, 126, 153, or ESL 67, 68 recommended. |  |
| Notes: 1. An AS degree will be awarded to any Alcohol and Drug Abuse Counseling Certificate candidate who successfully completes a 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. Associate degree requirements are listed on page 29. General E cation requirements for transfer certification are on page 36. |

## 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

## SOCIAL WORK OPTION - MAJOR \#7631

This program is designed to prepare students for entry-level employment in a social service setting or to transfer as a junior to a baccalaureate degree program in social work. This program is for the person who has a strong desire to help people who traditionally have been underrepresented within the larger society and require interventions and assistance in increasing control of their personal destinies. These introductory courses will give the student a good fundamental working knowledge of the social services system.

The program offers course work leading to a certificate of completion, a certificate of achievement, and an associate in science degree in social work. Students must take the required courses listed in the Core (see below), and select 12 units from the list of options.

## ASSOCIATE IN SCIENCE DEGREE AND <br> 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 (Coop), Occup ........................... 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 OPTIONS: SELECT 12 UNITS Units
AFRAM 1 African-American Culture.................................... 3
AFRAM $2 \quad$ The Cultural Adaptation
of the African-American........................................ 3
AMIND 32 Native American History...................................... 3

| AMIND 34 | The Native American in |
| :---: | :---: |
|  | Contemporary Society ..................................... 3 |
| BT 107 | WordPerfect I...................................................1.5 |
| BT 108 | WordPerfect II .................................................. 1.5 |
| BT/IS 14 | Windows ........................................................ 1.5 |
| CHDEV 5 | Parent Education. |
| CHDEV 11 | The Young Child With Special Needs................... 3 |
| CHDEV/PSY 12 | Child Abuse |
| CHDEV 15 | Diversity Issues in Early Care and Education |
|  | Programs ...................................................... 3 |
| CHDEV 30 CHDEV/SOC 31 | Child, Family and Community, or <br> Child in Society. $\qquad$ 3 |
| CLS 11 | Introduction to Chicano-Latino Studies ............... 3 |
| CLS/SOC 14 | Sociology of the Chicano Community ................. 3 |
| CLS 30 | The Mexican-American Family - |
|  | Social and Psychological Perspectives.................. 3 |
| FN 35 | Basic Nutrition, or |
| FN/WSTS 43 | Women's Nutrition ...................................... 3 |
| HMONG 1 | Beginning Hmong......................................... 4 |
| HS/SOC/WSTS 5 | Sociology of Rape.......................................... 2 |
| HS/SOC/WSTS 7 | Domestic Violence: |
|  | The Problem of Spouse Abuse........................... 1 |
| HS 19A | Work Experience (Coop), Occup .....................1-4 |
| HS/WSTS 25 | Assertiveness Training...................................... 2 |
| HS 38 | Community Mental Health: |
|  | Policy and Services......................................... 3 |
| SOC 1A/160 | Introduction to Sociology ................................. 3 |
| SOC/HS 2 | American Minorities........................................ 3 |
| SPAN 1 | Beginning Spanish......................................... 4 |
| WSTS 42 | Women and Chemicals .................................. 2 |

Note: An associate in science degree will be awarded on the successful completion of 60 units. See page 29 for associate degree requirements. General education requirements for transfer certification are on page 36.
For career options, consult with Human Services staff.

## HUMANITIES - MAJOR \#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 AA degree and General Education transfer certification for the state university system. Students seeking only the AA degree have greater flexibility in general education electives.

## ASSOCIATE IN ARTS DEGREE

FIRST YEAR
First Semester Units
+HUMAN 10 Classical Humanities........................................... 3
ENGL 1A Reading and Composition .................................... 4
+Studio or Performing Class: Art, Music, or Drama............................. 3
+Foreign Language ..... 4
Life Science Elective. ..... 3-4
Total 17-18
Second Semester ..... Units

+ HUMAN 11 Modern Humanities .....  3
+ Literature Course: ENGL 1B; 44A, 44B;45; 46A, 46B; 48A, 48B; CLS 21;
TA 32A, 32B, 47 .....  3
HIST 1 Survey of Western Civilization, or HIST 2 Survey of Western Civilization . ..... 3
+Foreign Language ..... 4
MATH Elective ..... 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, orAFRAM $1 \quad$ African-American Culture, orCLS 11 Intro to La Raza Studies, orAMIND 31 American Indian Culture.3
HIST $11 \quad$ History of United States, or HIST 12 History of United States. ..... 3
Physical Education .....  1
Second Semester ..... Total 16-17
+ENGL 42 Classic Myths. ..... Units
+ PHIL 1A
PHIL 1B
Knowledge, Existence, Beauty, or
PHIL 1C
Social \& Political Philosophy, or Ethics .....  3
SPEECH 1SPEECH 4Intro to Public Speaking, orPersuasion......................................................... 3
3
PSY 2 General Psychology.
GEOG 2 Cultural Geography, orGEOG 4A World Geography, orGEOG 4BWorld Geography 3
HLTH 1 Contemporary Health Issues .....  3
+Major Requirements


## INDUSTRIAL ARTS AND TECHNOLOGY MAJOR \#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.

| ASSOCIATE IN SCIENCE DEGREE |  |
| :---: | :---: |
| FIRST YEAR |  |
| First Semester | Units |
|  | Total 6 |
| Second Semeste | ter 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 Semeste | ter 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 science degree requirements are listed on page 29.

## INDUSTRIAL TECHNOLOGY

CONSTRUCTION OPTION - MAJOR \#8240

## ASSOCIATE IN SCIENCE DEGREE TRANSFER PROGRAM TO CSUF

FIRST YEAR
First Semester ..... Units
ENGL 1A Reading and Composition .....  4
PHYS 2A General Physics. .....  4
MATH 12 Intro to Calculus, or MATH 5A Math Analysis I. ..... 5-4
ARCH 12 Arch Drawing. .....  3
Physical Education .....  1
Total 16-17
Second Semester ..... Units
SPEECH 1 Intro to Public Speaking, or SPEECH 2 Interpersonal Communication. .....  3
AT 11 Electricity .....  3
ENGR 6 Graphics .....  4
ENGR 1A Elementary Plane Surveying .....  3
BIOL, CHEM orGEOL 4
SECOND YEAR
First Semester Units
ENGL 1B Study of Literature, or
PHIL 1A Knowledge/Existence/Beauty. .....  3
POLSCI 2 American Government. ..... 3
ECON 1A Intro to Macroeconomics ..... 3
BIOL, CHEM or
PHYS 2B ..... 3-4
Physical Education ..... 1
AT 10 Technical Computer Applications ..... 2
Total 15-16
Second Semester ..... Units
Physical Education ..... 1
HLTH 1 Contemporary Health Issues ..... 3
HIST 11 Hist of the U.S. to 1865 , or
Hist of the U.S. Since 1865 ..... 3
ECON 1B Intro to Microeconomics. ..... 3
Fine Arts Elective ..... 3
ARCH 21 Building Materials. ..... 3
Total 15
Recommended Electives: At 21; CONS 19, 51, 53; ARCH 10, 23, 24, 30, 33, 42.Note: Associate degree requirements are listed on page 29.
MANUFACTURING OPTION - MAJOR \#8260
ASSOCIATE IN SCIENCE 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 Analysis I ..... 5-4
DRAFT 12 Board Drafting Practices ..... 3
Physical Education ..... 1
Total 16-17
Second SemesterUnits
SPEECH 1 Intro to Public Speaking, or
SPEECH 2 Interpersonal Communication .....  3
AT 11 Electricity ..... 3
BIOL or GEOL ..... 4
ENGR 11 Manufacturing Processes .....  3
Physical Education .....  1
SECOND YEAR
First Semester Units
ENGL 1B Study of Literature, or
PHIL 1A Knowledge/Existence/Beauty .....  3
POLSCI 2 American Government .....  3
ECON 1A Prin of Macroeconomics .....  3
WELD 1 Basic Welding .....  3
CHEM 3A Intro General Chemistry, or PHYS 2B General Physics. .....  4
Physical Education .....  1
Total 17
Second Semester ..... Units
HIST 11 Hist of the U.S. to 1865, or ..... HIST 12
Hist of the U.S. Since 1865 .....  3
ECON 1B Prin of Macroeconomics .....  3
Fine Arts Elective .....  3
HLTH 1 Contemporary Health Issues ..... 3
Physical Education .....  1
Total ..... 13
Recommended Electives: AT 21; GRC 10; and WELD 19.Note: Associate degree requirements are listed on page 29.
INFORMATION SYSTEMS
COMPUTER INFORMATION SYSTEMS - MAJOR \#2081
This program provides a strong academic preparation in InformationSystems and Computer Science. The courses give students the fundamentalsin current programming languages and a broad foundation in Business Ad-ministration. This major will prepare students for transfer as an InformationSystems Major to most transfer schools as well as entry-level employment as acomputer programmer. Transfer students should obtain complete informationon transfer requirements as they plan their program.
ASSOCIATE IN SCIENCE DEGREE
FIRST YEAR
First Semester Units
ACCTG 4A Financial Accounting. .....  4
BA 28 E-Law and Ethics .....  3
IS 15 Computer Concepts .....  3
Total 10
Second Semester ..... Units
ACCTG $4 \mathrm{~B} \quad$ Managerial Accounting. .....  4
BA 18 Business and the Legal Environment. .....  4IS 47

## 124 Information Systems - Data Entry Operator

SECOND YEAR
First Semester Units
DS 21 Finite Mathematics ............................................. 3
ECON 1A Principles of Macroeconomics............................. 3
IS 36 Beginning C++ Programming, or .........................
IS 33 Beginning Java Programming ............................ 3
Total 9
Second Semester Units
DS 23 Statistical Analysis............................................... 3
ECON 1B Principles of Microeconomics................................ 3
IS 37 Advanced C++ Programming, or ......................... 3
IS 34
Advanced Java Programming

Total 9
Note: Associate degree requirements are listed on page 29.

DATA ENTRY OPERATOR - MAJOR \#2089
This curriculum is designed for entry level employment as a data entry operator. Advanced computer information principles and programming skills are not required.

## CERTIFICATE OF ACHIEVEMENT

| Units | Units | Units |
| :--- | :--- | ---: |
| *Summer | First | Second |
| Session | Semester | Semester |

BT I Beginning Typing........ 3
MATH 270 Fundamental Math ..... 3
ENGL 252
BT 2
IS 12
BT 115
BA 10
BT 112
Writing Improvement.. 4
Word Processing I....................... 3
Computer Literacy ....................... 3
Refresher Math ............................ 3

BT 108 WordPerfect II (9 wks.) .................................... 1.5
IS 18 Spreadsheet Fund (9 wks.).............................. 1.5
IS 20 Advanced Spreadsheet ( 9 wks.) ........................ 1.5
IS 26 dBase Fund(9 wks.) ........................................ 1.5
IS 27 Advanced dBase (9 wks.) .................................. 1.5
BT 20 Resume/Interview (9 wks.) ............................ 1.5
BT 21 Working Relationships ( 9 wks.)....................... 1.5
$\begin{array}{llll}\text { Total } & 10 & 14 & 10.5\end{array}$
Total Program Requirements $\quad 34.5$
*Students can place out of all summer session classes by passing the appropriate tests.

Note: Associate degree requirements are on page 29.

## MCSE CORE - MAJOR \#2088

A certificate of completion may be awarded for the successful completion of the core requirements of the MCSE program. Upon completing these core classes, the student will have the basic knowledge to understand networking concepts, principles, and procedures using the Microsoft Network Operating System.
CERTIFICATE OF COMPLETION Units
IS 30A Fundamentals of Networking ................................ 4
IS 30B Network Infrastructure.......................................... 4
IS 30C Directory Services ................................................ 4
Total 12

## MCSE NETWORKING - MAJOR \#2087

## CERTIFICATE OF ACHIEVEMENT

Designed to meet the training needs for qualified entry-level Microsoft network technicians. It is also designed to help prepare for the Microsoft Certified Systems Engineer certification tests for Windows 2000.
TOTAL UNITS REQUIRED 24

## REQUIRED COURSES

IS 30A

Fundamentals of Networking
.. 4

IS 30B
IS 30C MCSE-2154 Directory Services Board ..................... 4
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

## MICROCOMPUTER SOFTWARE SPECIALIST MAJOR \#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.

| ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |  |
| :---: | :---: | :---: |
| FIRST YEAR |  |  |
| First Semester |  | Units |
| ACCTG 4A | Financial Accounting.............. | ..... 4 |
| BA 28 | E-Law and Ethics .... | ....... 3 |
| BT 106 | Computer Keyboarding. | .. 1.5 |
| IS 15 | Computer Concepts .............. | ........ 3 |
| MATH 101 | Elementary Algebra (if needed)... | ........ 3 |

# Information Systems - Networking/Computer Technician 

| Second Semester |  | Units |
| :---: | :---: | :---: |
| BT/IS 25 | Microsoft Office, or.................. | $\ldots . .$. |
| BT/IS 18 | Spreadsheet Fundamental, and | $\ldots . .$. |
| BT/IS 26 | Database Fundamentals....... | $\ldots$ |
| IS 14 | Windows .......................... | ....... 1.5 |
| IS 40 | Internet.. | $\ldots . . . . .1 .5$ |
| IS 41 | Research on the World Wide Web ... | ............. 1.5 |
|  |  | Total 10.5 |
| SECOND YEAR |  |  |
| First Semester |  | Units |
| IS 17 | Data Communication .......... | $\cdots \cdots \cdots$ |
| 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 (Coop), Occup | ................ 2 |
| IS 27 | Advanced Database.. | 1.5 |
| IS 46 | Advanced Microsoft 0ffice...... | 3 |
|  |  | Total 6.5 |
| Recommended Electives: IS $23,24,33,60$. |  |  |
| Note: Associate degree requirements are listed on page 29. |  |  |
| MICROSOFT ACCESS 2000 - MAJOR \#2433 |  |  |
| This certificate of completion option is designed to assiststudents pursuing MOUS certification. |  |  |
| CERTIFICATE OF COMPLETION |  | Units |
| BT/IS 26 | Database Fundamentals .... | -..... 1.5 |
| IS 27 | Advanced Database................. | ................... 1.5 |
|  |  | Total 3 |
| MICROSOFT EXCEL 2000 - MAJOR \#2434 |  |  |
| This certificate of completion option is designed to assist students pursuing MOUS certification. |  |  |
| CERTIFICATE OF COMPLETION |  | Units |
| BT/IS 18 | Spreadsheet Fundamentals........ | $\ldots . . . . . .1 .5$ |
| IS 20 | Advanced Spreadsheets........ | ....... 1.5 |
|  |  | Total 3 |
| MICROSOFT OFFICE 2000 - MAJOR \#2432 |  |  |
| This certificate of completion option is designed to assist students pursuing MOUS certification. |  |  |
|  |  |  |
| CERTIFICATE OF COMPLETION |  | Units |
| BT/IS 25 | Microsoft 0ffice ..... | $\ldots$ |
| IS 46 | Advanced Microsoft Office.. | ........... 3 |

## 126 Information Systems - System Support Specialist


Second Semester Units
IS 25 Microsoft Office .....  3
IS 22 Computer Operating Systems .....  3
IS 47 Visual Basic. .....  3
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 28 Dreamweaver - Data ..... 3
IS 34 Advanced Java Programming .....  3
Total 9
Recommended Electives: GRC 41; IS 30A, 46, 260.
Note: Associate degree requirements are listed on page 29.
JOURNALISM - MAJOR \#5350
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENTFirst SemesterUnits
+JOURN 1 Intro to Mass Communications .....  3
+JOURN 2 Interpreting Current Events .....  3
SPEECH 1 Intro to Public Speaking, or
SPEECH 2 Interpersonal Communication .....  3
ENGL 1A Reading and Composition .....  4
POLSCI 2 American Government .....  3
Total 16
Second Semester Units
+JOURN 3 Newswriting. .....  3
+J0URN 5 Newspaper Staff .....  3
Physical Education .....  1
SPEECH 25 Argumentation .....  3
PHIL 1A Knowledge/Existence/Beauty, or PHIL 1B Social \& Political Phil .....  3
Electives ..... 2-3
Total ..... 15-16
SECOND YEAR
First Semester ..... Units
+JOURN 5 Newspaper Staff .....  3
+PHOTO 30 Photojournalism .....  3
HLTH 1 Contemporary Health Issues .....  3
Physical Education .....  1


## LIBERAL STUDIES - MAJOR \#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 blended major sheet available in the Counseling Center. Required courses include EDUC 30 and EDA 19.

## LIBRARY TECHNOLOGY - MAJOR \#5171

## ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS

Requires completion of the major ( 22 units) with a 2.0 or better GPA and completion of the associate degree requirements listed in the catalog. Students seeking an associate degree may apply after they have completed 30-40 units and are within a year of graduation.

Students interested in an associate in science degree are urged to consult a counselor or faculty advisor regarding this program. It is the student's responsibility to be aware of any degree requirements.

## CERTIFICATE OF ACHIEVEMENT REQUIREMENTS

Requires completion of the major ( 22 units) with a 2.0 or better GPA. Students interested in a certificate of achievement are urged to consult a counselor or faculty advisor regarding this program. This program can be completed in less than two years.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

REQUIRED CORE COURSES Units
IS 15 Computer Concepts ............................................. 3
LITEC 51 Introduction to Library Services ............................ 3
LITEC 52 Library Technology Services.................................... 3
LITEC 54 Literature and Services for Youth........................... 3
LITEC 55 Library Public Service ......................................... 3
LITEC 56 Information Technology...................................... 3
LITEC 57 Reference: Print and Online Sources..................... 3
COURSE OPTIONS: SELECT ONE COURSE
LITEC 19 Work Experience (Coop), Occup ..... 1-4
LITEC 60 Library Technology Capstone .....  1
Note: Associate degree requirements are listed on page 29.
MARKETING - MAJOR \#2110This curriculum is designed for students planning to enter the marketingfields of retailing, wholesaling, general selling, and advertising.
ASSOCIATE IN SCIENCE DEGREE
FIRST YEARFirst SemesterUnits
MKTG 10 Marketing .....  3
MKTG 11 Salesmanship .....  .3
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
BA 33 Human Relations in Business. .....  3
Associate Degree Requirements ..... 10
Total 16
Recommended Electives: BA 5, 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 29.
CERTIFICATE OF ACHIEVEMENT
BT 20 Resume/Interview ..... 1.5
BT 21 Working Relationships ..... 1.5
BT 115* Refresher Math ..... 3
BT 131 Applied Accounting .....  3
IS 12 .....  2
MKTG 10 Marketing Principles .....  3
MKTG 11 Salesmanship .....  3
JRTG 14
Retailing MKTG 14 .....  3
Advertising MKTG 12 .....  3
Work Experience (Coop), Occup MKTG 19 .....  2
Total 25
*Requirements and units will be waived if knowledge and skill in the subject matter can be demonstrated.
CALL CENTER TELEMARKETING - MAJOR \#2115After completion of this program, individuals will be prepared for thefollowing career/jobs: telemarketers, telephone solicitors, customer servicerepresentatives, sales associates, sales agents-service, debt collectors, billingclerks, 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 Work Experience (Coop), Occup ..... 1
BT $1 \quad$ 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 $270 \quad$ 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
CUSTOMER RELATIONS SPECIALIST ASSOCIATE OPTION - MAJOR \#2612
After completion of this program, individuals will be prepared for thefollowing career/jobs: customer service representative, sales associate, recep-tionist, and any entry-level customer service oriented business.
CERTIFICATE 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 ..... 1.5
BT 106 Computer Keyboarding. ..... 1.5
BT 250 Office Skills Lab. .....  1
BT 271 Business Grammar Fundamentals .....  2
Business Math Skills ..... 1
IS 272
Introduction to Computers
Introduction to Computers .....  1
IS 277
Work Experience (Coop), Occup .....  4MKTG 251MKTG 254
Accelerated Excel ..... 1.5
Introduction to Sales \& Marketing. .....  1
MKTG 252 Customer Service .....  1
MKTG 253 Personal Development .....  1
Business Presentations. .....  1
MKTG 255 Telemarketing .....  1
Total 26
PERSONAL SALES - MAJOR \#2114
CERTIFICATE OF COMPLETION Units
BA 33 Human Relations. .....  3
MKTG 10 Introduction to Marketing .....  3
MKTG 11 Personal Sales .....  3
Total 9
RETAILING - MAJOR \#2116
CERTIFICATE OF COMPLETION Units
BA 33 Human Relations .....  3
MKTG 10 Introduction to Marketing .....  3
MKTG 14 Retailing. .....  3
Total 9
MATHEMATICS - MAJOR \#6200The math degree program will help prepare students for math and sciencerelated 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 | Plane Geometry |
| MATH 103 | Intermediate Algebra |ASSOCIATE IN SCIENCE DEGREETOTAL UNITS REQUIRED22-24

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 Mathematical Analysis III .....  4

| OPTIONAL ELECTIVES (SELECT TWO COURSES FROM THE FOLLOWING:) |  |
| :---: | :---: |
| CSCI 41 | Programming Concepts \& Methodology II............. 4 |
| MATH 7 | Introduction to Differential Equations.................... 4 |
| MATH 11 | Elementary Statistics, or |
| MATH 42 | Statistics for The Behavioral Sciences................. 4 |
| MATH 21 | Finite Mathematics, or |
| MATH 10B | Structure/Concepts II ..................................... 3 |
| MATH 26 | Elementary Linear Algebra ................................. 3 |
| MATH 45 | Contemporary Mathematics ................................. 3 |
| PHYS 4A | Physics for Scientists and Engineers....................... 4 |
| PHYS 4B | Physics for Scientists and Engineers...................... 4 |

Note: Associate degree requirements are listed on page 29.

## MEDICAL ASSISTANT-CLINICIAN -

MAJOR \#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 60F.
3. Completed an Academic Summary Form for the Medical AssistantClinician 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.

## ASSOCIATE IN SCIENCE DEGREE <br> FIRST YEAR

First Semester
Units
BT 20
Resume/Interview1.5

BT 21

Working Relationships.

1.5

HIT 10 Medical Terminology ........................................... 3
**MA 1 Legal and Ethical Concepts.................................. 2
Total 8

| Second Semester |  |
| :---: | :---: |
| BIOL 51 | Anatomy and Physiology .................................. 4 |
| HLTH 2 | First Aid and Safety......................................... 2 |
| HS 24 | Interviewing and Counseling............................. 3 |
| IS 15 | Computer Concepts ......................................... 3 |
| **MA 2 | Pharmacology ................................................ 3 |
|  | Total 15 |
| SECOND YEAR |  |
| First Semester | Units |
| **MA 4 | Office Lab Procedures....................................... 4 |
| **MA 6A | Clinical Training............................................. 3 |
|  | Total 7 |
| Second Semester | er Units |
| FN 40 | Nutrition..................................................... 3 |
| **MA5 | Testing Procedures ......................................... 4 |
| **MA6B | Advanced Training ......................................... 3 |
| **MA 19 | Work Experience (Coop), Occup ........................ 4 |
|  | Total 14 |
| ** Upon completion Assistant State Cer | , the student will be eligible to take the California Medical rtification Exam. |

## MUSIC

This program satisfies the requirements for the associate in arts degree 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, $7 \mathrm{~A}, 7 \mathrm{~B}, 9,13$, and 18 . Music majors must also 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 or 73A or 74 A (brass), Music 42B or 73B or 74B (woodwinds), Music 42C or 73C or 74C (strings), Music 42D or 73D or 74D (percussion).
Vocal majors (Major \#5820): take Music 26 (voice) and Music 30 or 60 or 61 (choir).
Guitar majors (Major \# 5830): take Music 29 (guitar) and Music 30 or 60 or 61 (choir) or Music 40 or 68 or 69 (band).
Piano majors (Major \#5840): take Music 22 (piano) and Music 30 or 60 or 61 (choir) or Music 40 or 68 or 69 (band).
ASSOCIATE IN ARTS DEGREE
SEQUENCE OF COURSES
FIRST YEAR
Fall Semester ..... Units
MUS 1A Music Theory I .....  3
MUS 7A Ear Training .....  1
INT/ADV class* .....  2
Large ensemble+ .....  2

| Spring Semester |  |
| :--- | :--- | :--- |
| MUS 1B | Music Theory II..................................................... 3 |

*INT/ADV CLASSES

| MUS 22 | Piano |
| :--- | :--- |
| MUS 26 | Voice |
| MUS 29 | Guitar |
| MUS 57 | Solo Repertoire Studies I |
| MUS 58 | Solo Repertoire Studies II |
| MUS 42A | Brass Ensemble |
| MUS 42B | Woodwind Ensemble |
| MUS 42C | String Ensemble |
| MUS 42D | Percussion Ensemble |
| MUS 73A | Int/Adv Chamber Ensemble (Brass) |
| MUS 73B | Int/Adv Chamber Ensemble (Woodwinds) |
| MUS 73C | Int/Adv Chamber Ensemble (Strings) |
| MUS 73D | Int/Adv Chamber Ensemble (Percussion) |
| MUS 74A | Int/Adv Brass Performance Practices |
| MUS 74B | Int/Adv Woodwind Performance Practices |
| MUS 74C | Int/Adv String Performance Practices |
| MUS 74D | Int/Adv Percussion Performance Practices |

+LARGE ENSEMBLES

| MUS 30 | College Choir |
| :--- | :--- |
| MUS 40 | Concert Band |
| MUS 46 | Symphony Orchestra |
| MUS 60 | Symphonic Choir |
| MUS 61 | A Cappella Choir |
| MUS 68 | Symphonic Band |


| MUS 69 | Wind Band |
| :--- | :--- |
| MUS 75 | Community Orchestra |
| MUS 76 | College Philharmonic Orchestra |


| Note: Associate degree requirements are listed on page 29. General Education |
| :--- |
| requirements for transfer certification are listed on page 36. |

COMMERCIAL MUSIC - MAJOR \#5850

MUS 75 Community Orchestra
MUS 76 College Philharmonic Orchestra
Note: Associate degree requirements are listed on page 29. General Education requirements for transfer certification are listed on page 36.

## COMMERCIAL MUSIC - MAJOR \#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.

## ASSOCIATE IN SCIENCE DEGREE AND <br> CERTFICATE OF ACHIEVEMENT

Fall Semester
The Music Business ............................................. 3
Audio Engineering 3
*MUS 20 Beginning Piano Level ITotal 8
pring Semester 3
Elementary Voice Level
2
MUS electivesTotal 8-9Fall Semester 3
Cos
3
MUS electivesTotal $9-10$Sping 112 2
nging
1
Large ensemble+ .....  3**MUS 22 may be substituted

Note: Associate degree requirements are listed on page 29. General Education requirements for transfer certification are listed on page 36.

## NURSING, REGISTERED - MAJOR \#4520

The profession of registered nursing involves the provision of health care services, both direct and indirect, that focus on the maintenance, promotion and restoration of health. This includes basic health care to help people cope with difficulties in daily living that are associated with actual or potential problems of health, illness or the treatment thereof. Nursing is a dynamic problem-solving that focuses on the response of the individual to health problems. The practice of registered nursing requires a substantial amount of scientific knowledge and technical skills as well as leadership and managerial abilities. Students attend classes on the Fresno City College campus. Nursing experience is provided in selected local hospitals and health agencies.

## 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 Skills for 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 " $C+$ " (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 GPA and college courses of an applicant will have precedence over an applicant's high school GPA and courses.
2. Prior to registration for the semester in which the applicant is scheduled to take courses in the Registered Nursing Program, the student must submit evidence of physical examination, current immunizations,
and freedom of TB 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 Exami-nation-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.

## ASSOCIATE IN SCIENCE DEGREE

Registered Nursing Course Sequence (All courses must be completed with
a grade of "C" or better.)

## FIRST YEAR

| First Semester | Units |
| :---: | :---: |
| RN 1 | Introduction to Nursing Theory \& Process .......... 5 |
| RN 2 | Introduction to Nursing Process Clinical............. 4 |
|  | Total 9 |
| Second Semester | er Units |
| RN 5 | Perinatal \& Adult Reproductive |
|  | Health Nursing............................................... 2.5 |
| RN 6 | Perinatal \& Adult Reproductive |
|  | Health Nursing Clinical ................................... 2 |
| RN 9 | Psychiatric \& Community |
|  | Mental Health Nursing .................................... 2.5 |
| RN 10 | Psychiatric \& Community |
|  | Mental Health Nursing Clinical.......................... 2.5 |
| RN 15 | Nursing Leadership .......................................... 1 |
| RN 21 | Transcultural Health Care ................................. 1 |

## SECOND YEAR

First Semester Units

RN 3 Intermediate Medical-Surgical Nursing................ 2.5
RN 4 Intermediate Medical-Surgical Nursing $\quad$ Clinical .............................................................. 2.5
RN 13 Nursing of Infants \& Children.............................. 2
RN 14 Nursing of Infants \& Children Clinical................. 2
Second Semester Units
RN 7 Advanced Medical-Surgical Nursing (A) ............... 2.5
RN $8 \quad \begin{array}{ll}\text { Advanced Medical-Surgical Nursing (A) } \\ & \text { Clinical ............................................................... } 2.5\end{array}$
RN 11 Advanced Medical-Surgical Nursing (B)............... 2.5
RN 12 Advanced Medical-Surgical Nursing (B) Clinical. 2.5

Total 10

## Degree/Licensure Requirements

In addition to the program application requirements and the program course requirements, the following courses are required to apply for licensure. All course work must be completed with a " $C$ " or better.

## Speech 1 or 2

Electives to complete the AS 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.

## PARALEGAL - MAJOR \#2550

This curriculum is designed for the student who desires employment and advancement in the field of paralegal work.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
TOTAL UNITS REQUIRED ..... 37
REQUIRED CORE COURSES ..... Units
BA 20 Law and the Legal System. .....  3
PLEGAL 1 Introduction to Paralegalism .....  3
PLEGAL 2A Legal Research \& Writing . .....  3
PLEGAL 2B Legal Research \& Writing. .....  3
PLEGAL 6A Litigation .....  3
PLEGAL 6B Litigation .....  3
PLEGAL 7 Law Office Practices .....  3
PLEGAL 14 Law Office Computing .....  3
BA 19 .....  4
BT 107* WordPerfect I .....  1.5
BT 108* WordPerfect II ..... 1.5
Total 31
*BT 28 and 29 may be taken as alternatives to BT 107 and 108.
Electives Units
Choose any 2 of the following courses for a total of 6 units:
PLEGAL 3 Family Law. .....  3
PLEGAL 4 Probate .....  3
PLEGAL 5 Business Organizations. .....  3
PLEGAL 8 Torts/Contracts .....  3
PLEGAL 9 Real Property. .....  3
PLEGAL 10 Criminal Law \& Procedure .....  3
PLEGAL 11 Evidence .....  3
PLEGAL 12 Bankruptcy. .....  3
PLEGAL 13 Discovery/Trial Preparation .....  3
PLEGAL 15 Debt Collection \& Enforcement of Judgments ..... 3
PLEGAL 16 Environmental Law. .....  3
PLEGAL 17 Administrative Law/Workers' Compensation .....  3
BT 140/
PLEGAL 156 Legal Office Administration .....  3
BT 141 Legal Document Preparation .....  3

Note: Associate degree requirements are listed on page 29.

## LEGAL ASSISTANT-CLERK - MAJOR \#2552

This program is designed to prepare the Business Office Assistant student for an entry-level clerical support staff position in the law office environment. Upon completion of the program, the student will possess the clerical skills required for entry-level positions in a law office, be familiar with basic legal terminology, and understand the culture of the law office environment.
CERTIFICATE OF COMPLETION Units
BA 20 Law and the Legal System.................................... 3
BT 30 Machine Transcription. ..... 2
BT 50 Office Skills Lab. ..... 1
BT $112 \quad$ Business English (Online) .....  2
PLEGAL 14 Law Office Computing ..... 3
PLEGAL 156/ ..... BT 140
Legal Office Administration. ..... 3
Total 14
PHOTOGRAPHY
PROFESSIONAL PHOTOGRAPHY - FORMERLY PHOTOGRAPHY - MAJOR \#5221Students in this curriculum are trained in the major areas of professionalphotography. Positions for which graduates may qualify, depending upontheir interest, abilities, and achievement, include those in the portrait, com-mercial, editorial, digital, laboratory, and retail fields. Some equipmentand supplies provided.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester ..... Units
РНоТО 10 Basic Black \& White. .....  3
РНОТО 12 Photoshop for Photographers ..... 3
PHOTO 15 Photography \& Visual Literacy ..... 3
Total
Units
Second Semester
3
РНоТО 20 Advanced Black \& White
3
РНОТО 23 Digital Darkroom .....
PHOTO 25 Portraiture. ..... 3
Total 9
SECOND YEAR
First Semester ..... Units
PHOTO 30 Photojournalism \& Visual Communication ..... 3
PHOTO 33 Basic Color Photography ..... 3
PHOTO 35 Lighting Principles. .....  3
Total
Units
Second Semester ..... 號
PHOTO 40 Photo Editing \& Marketing .....  3
PHOTO 45 Independent Photo Study. ..... 3
BA 50 Business Concepts ..... 1.5
BA 51 Survey of Entrepreneurships. ..... 1.5
Total

Recommended Electives: ART 3, FILM 1, GRC 27, JOURN 5.
Note: Associate degree requirements are listed on page 29.
COMMERCIAL PHOTOGRAPHY - MAJOR \#5222
CERTIFICATE OF COMPLETION Units
PHOTO 12 Photoshop for Photographers .....  3
PHOTO 20 Advanced Black \& White .....  3
PHOTO 25 Portraiture .....  3
PHOTO 35 Lighting Principles .....  3
Total ..... 12
DIGITAL PHOTOGRAPHY - MAJOR \#5223
CERTIFICATE OF COMPLETION ..... Units
PHOTO 10 Basic Black \& White ..... 3
PHOTO 12 Photoshop for Photographers. ..... 3
PHOTO 23 Digital Darkroom. ..... 3
PHOTO 45 Independent Photo Study. .....  3
Total 12
FINE ART PHOTOGRAPHY - MAJOR \#5224

| CERTIFICATE OF COMPLETION |  | Units |
| :---: | :---: | :---: |
| PHOTO 15 | Photography \& Visual Literacy .. | $\ldots$ |
| PHOTO 20 | Advanced Black \& White. | ..... 3 |
| PHOTO 33 | Basic Color Photogaphy.......... | ....... 3 |
| PHOTO 45 | Independent Photo Study....... | ....... 3 |
|  |  | tal 12 |

PHOTOJOURNALISM - MAJOR \#5225
CERTIFICATE OF COMPLETION ..... Units
PHOTO 10 Basic Black \& White .....  3
PHOTO 12 Photoshop for Photographers. .....  3
PHOTO 30 Photojournalism \& Visual Communication .....  3
PHOTO 40 Photo Editing \& Marketing. .....  3
Total 12
RADIOLOGIC TECHNOLOGY - MAJOR \#4570
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. Apply knowledge of anatomy, physiology, and radiographic techniques 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.

## 134 Radiologic Technology

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 performance 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 score 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 student 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)

## FIRST YEAR

First Semester Units
RAD 1A Fundamentals .................................................... 6
RAD 1B Basic Positioning............................................... 1
RAD 1C Clinical Orientation Lab ...................................... 2
Total 9
Second Semester 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


## REAL ESTATE

This curriculum is designed for the student who desires employment in the real estate field.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE 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 117 Business Math ..................................................... 3
BA 18 Business and the Legal Environment.................... 4
BA 33 Human Relations in Business............................... 3
Total 22

## BROKER/SALES OPTION - MAJOR \#2190

Units
Common-Core Courses ................................................................ 22
RE 41 Real Estate Practice.....................................................................
RE 43 Appraisal I .......................................................... 3
RE 56 Real Estate Economics........................................ 3
RE 57 Appraisal II......................................................... 3
Total Option Requirements 34

## ESCROW OPTION - MAJOR \#2310

Units
Common-Core Courses ............................................................... 22
RE 60 Principles of Escrow.
.. 3
RE 61 Escrow Practices................................................. 3
BA 21 Business Law ....................................................... 3
BT 1 Beginning Typing................................................ 3 Total Option Requirements 34

## HOUSING MANAGEMENT OPTION - MAJOR \#2340

## Units

Common-Core Courses 22

RE 58 Tax Planning and Investing ................................ 3
BA 5 Business Communications ................................... 3
BA 30
Personal Finance.................................................. 3
RE 63
Property Management

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Total Option Requirements 34
Note: Associate degree requirements are listed on page 29.

## RECREATION LEADERSHIP - MAJOR \#4300

Proposed courses for transfer to State Universities.

## ASSOCIATE IN ARTS DEGREE

## FIRST YEAR

First Semester ..... Units
*REC $20 \quad$ Intro to Recreation .....  3
+HLTH 1 Contemporary Health Issues .....  3
+ENGL 153 English Fundamentals, orENGL 1A Reading \& Composition, orESL 67 Writing \& Grammar, or
ENGL 125 Writing Skills for College .................................3-4
TA 31A Tech of Act .....  3
+PE Physical Education Activity. .....  1
Electives .....  3
Total 16-17
Second Semester ..... Units
*REC 23 Outdoor Recreation .....  3
+SPEECH 1 Intro to Public Speaking, or SPEECH 2 Interpersonal Communication .....  3
*HLTH 2 First Aid and Safety. .....  2
+PSY 2 General Psychology. .....  3
$+\mathrm{PE}$ Physical Education Activity. .....  1
Electives ..... 3
Total 15
SECOND YEAR
First Semester ..... Units
*REC 21 Leadership .....  3

+ BIOL 1 Principles of Biol, or BIOL 3B Natural History Applications. .....  3


## 136 Respiratory Care Practioner

*PE Physical Education Activity.

$\qquad$ .....  1
SPEECH 25

ENGL 3
Critical Reading \& Writing, orSPEECH 25

+ART 2

Electives
Electives ..... Argumentation3
Total 15
Second Semester ..... Units
*PE 22 Intro to Physical Education .....  3
*REC 19 Work Experience (Coop), Occup ..... 4
+POLSCI 2 American Government, or
POLSCI 10 American Institutions ..... 3
+MATH 101 Elementary Algebra, orMATH 102Geometry, or
College Arithmetic ..... 3
MATH 250
*PEPhysical Education Activity. 1
Electives .....  1

Recommended Electives: ART 10, 20; BA. 5, 16, 18, 31; BT 1, 31; Cultural Studies; English; JOURN 1; MUS 12; PHIL 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.

## RESPIRATORY CARE PRACTITIONER -

## MAJOR \#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 assessing 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 must meet all 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 3A 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 bigh school GPA and 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 degree 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.


## 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
General education courses to complete the AS 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.

## SCHOOL TO WORK - MAJor \#7001

The school to work program is designed to provide students both educational and vocational opportunities. A certificate 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.

## CERTIFICATE OF COMPLETION

Select a minimum of 15 units from the following list:
DEVSER 260 Workability 3
DEVSER 262 Group Interaction for Students with Disabilities.... 2
DEVSER 265 Individualized Instructional Problems ................... 1
DEVSER 272 Consumer Skills ................................................... 2
DEVSER 273 Independent Living Skills .................................... 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
DEVSER 280 SUCCESS Self-Exploration.................................... 3
DEVSER 281 SUCCESS Education and Career Option..............1-4
DVESER 282 Greenhouse Workforce Prep.................................. 4
DEVSER 291 Introduction to College Success............................ 2
DEVSER 292 College Awareness Survival Skills .......................... 2

## SOCIAL SCIENCE - MAJOR \#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 31 of this catalog.

## SPANISH - MAJOR \#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.

## 138 Speech Communication

ASSOCIATE IN ARTS DEGREE
TOTAL UNITS REQUIRED ..... 26
REQUIRED CORE COURSES ..... Units
CLS 29 History of Mexico, or
HIST 29 .....  3
SPAN 3 ..... SPAN 3NS
Intermediate Spanish or Placement, or Spanish for Spanish Speakers ..... 4
SPAN 4SPAN 4NS
High-Intermediate Spanish or Placement, orSpanish for Spanish Speakers 4
SPAN 5 Short Story: Mexico, Spain \& the U.S. .....  3
SPAN 6 Short Story: Latin America .....  3
SPAN 7 Advanced Spanish: Composition \& Grammar . .....  3
SPAN 8 Advanced Spanish: Conversation ..... 3
Total 23
COURSE OPTIONS: SELECT 6 UNITS
CLS 11CLS 12Intro to Chicano-Latino Studies, orChicano History, orCLS 28
Ancient Mexico .....  3
CLS 17 Beginning Mexican Folklorico Dance, orCLS 18
Latin Jazz, or
Advanced Mexican Folklorico Dance ..... 2-3
CLS 27
Chicano Art. .....  3
CLS 20
CLS 20
ENGL 40CLS 21Hispanic Literature emphasis only, orChicano Literature 3
LING 10 Introduction to Language .....  3
Notes: 1. An Associate in Arts degree in Spanish will be awarded to any can-didate who successfully completes a total of 60 units which includeassociate degree requirements and a minimum of 26 units of coursework as listed above. Associate degree requirements are listed on page29. General Education requirements for transfer certification arelisted on page 36.
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 - MAJOR \#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.
ASSOCIATE IN ARTS DEGREE
TOTAL UNITS REQUIRED ..... 24
REQUIRED CORE COURSES ..... Units
SPEECH 1 Introduction to Public Speaking .....  3
SPEECH 2 Interpersonal Communication. .....  3
SPEECH 4 Persuasion .....  3
SPEECH 8 Group Communication. ..... 3
SPEECH 20 Community Involvement. .....  3
SPEECH 25 Argumentation .....  3
SPEECH 26 Forensics .....  3
Total 21
COURSE OPTIONS: SELECT 3 UNITS ..... Units
JOURN 1 Introduction to Mass Communication .....  3
LING 10 Introduction to Language. .....  3
PHIL 1C Ethics. .....  3
PHIL 6 Introduction to Logic. .....  3
TA/SPEECH 12 Oral Interpretation ..... 3
Notes: 1. An associate in arts degree in Speech Communication 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 as listed above. Associate degree requirements are listed on page 29. General Education requirements for transfer certification are listed on page 36.
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.

## STUDENTS UNDERSTANDING COLLEGE, CAREERS, EMPLOYMENT, SUPPORT AND SUCCESS (SUCCESS) - MAJOR \#7003

SUCCESS is designed to provide students with severe disabilities with the necessary self-understanding and skills to transition successfully into the world of work. The SUCCESS certificate will provide employers with verification of the student's completion of the program.
CERTIFICATE OF COMPLETION Units
DEVSER 280 SUCCESS Self Exploration ..................................... 6
DEVSER 281 SUCCESS Educational and Career Option ............. 8
Total 14

## SURGICAL TECHNOLOGY - MAJOR \#4572

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 SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT <br> FIRST YEAR <br> First Semester Units <br> HIT 10 Medical Terminology ........................................... 3 <br> MA 2 Pharmacology.................................................... 3 <br> SURGT 101 Introduction to Surgical Technology .................... 3

| Second Semester |  |
| :---: | :---: |
| 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 |
| BIOL 31\# | Microbiology.. |
| SURGT 104 | Clinical Practicum......................................... 6 |
|  | Total 10 |
| Second Semester | er Units |
| SPEECH 2 | Interpersonal Communication.......................... |
| SURGT 105 | Advanced Clinical Practicum... |
|  | Total |
| \# Courses have prerequisites. See catalog or a counselor. |  |
| * + BIOL 20 and 22 may be substituted for BIOL 24 or 151. |  |
| Note: All courses listed are required for national certification. For the certificate of achievement and the associate degree, courses must be completed with a grade of "C" or better: An associate in science degree will be awarded to any candidate who successfully completes the associate degree requirements and the course work listed above. Associate degree requirements are listed on page 29. General Education requirements for transfer certification are listed on page 36. |  |
| National Certification |  |
| Accreditation of Allied Health Education Programs (CAHEEP). Successful completion of the Surgical Technology Program qualifies the student eligibility to take the Association of Surgical Technologist's (AST) National Certification Examination in order to become a Certified Surgical Technologist (CST). |  |

## 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 - MAJOR \#5970

| CERTIFICATE OF COMPLETION: 12 UNITS |  | Units |
| :---: | :---: | :---: |
| EDA 19 | Work Experience (Coop), Occup . | ....... 3 |
| 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
MATH 260
MATH 101
MATH 102
MATH 103
College Arithmetic, or
Arithmetic Review, or
Elementary Algebra, or
Plane Geometry, or
Intermediate Algebra.. . 3

Total 12-13

* See note below for degree requirements.

ASSOCIATE IN SCIENCE DEGREE AND
CERTIFICATE OF ACHIEVEMENT - MAJOR \#5910

PROGRAM REQUIREMENTS.
20
*REQUIRED CORE COURSES
(from Certificate of Completion) ..... 12
COURSE OPTIONS: SELECT A MINIMUM OF 9 UNITS Units
ART 7 or 2 or 9 or 10 or 22. .....  3
EDA 1 .....  2
ENGL 1A .....  4
GE0G 2 or 4 A or 4 B . .....  3
HIST 1 or 2 .....  3
HIST 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
PSY 2 or 38 or 39 .....  3
SPEECH 1 or 2 .....  3
BIOL 1 or 3 .....  3
PHYSCI 11 or 12 or GEOL 1 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 Math 250 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 degree requirements are listed on page 29. General Education requirements for transfer certification are on page 36.

EDUCATIONAL AIDE: SPECIAL EDUCATION -

## MAJOR \#5981

## CERTIFICATE OF COMPLETION <br> Units

EDA 6 Survey of Special Education .................................. 3
EDA 7 Learning Disabilities ............................................ 3
EDA 19 Work Experience (Coop), Occup ........................... 4
Total 10

## 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 BA degree 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 Credential 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 REQUIREMENT

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 not a 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, Work Experience (Cooperative), Occupational, 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 Ideals) at California State University, Fresno. These courses are offered fall, winter (three weeks), spring and summer sessions.

## THEATRE ARTS - MAJOR \#5440

The theatre arts major is more performance oriented and emphasizes a "hands-on" approach and places special focus on the "well-rounded" theatre artist. Students who complete the program can successfully transfer to a competitive four-year university or conservatory.

## ASSOCIATE IN ARTS DEGREE

REQUIRED 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
TA 40 Performance Practicum, or
$\begin{array}{ll}* * T A & 24 \\ * * T A ~ & \text { Theatre Crafts Practicum, or } \\ & \text { Costume Practicum.............................................. } 3\end{array}$
TA 43 Intermediate Acting............................................. 3
TA 44 Actors Workshop ................................................. 3
Total 33
Recommended electives: MUS 26; TA 28.
*TA 41 can be substituted for TA 42 .
** In addition to completing the required 3 units of Theatre Crafs Practicum and 3 units of Costume Practicum.

## DESIGN/TECHNICAL THEATRE STUDIES MAJOR \#5482

The design/technical theatre studies major emphasizes a "hands-on" approach and places special focus on the "well- rounded" theatre artist. 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.

| ASSOCIATE IN ARTS DEGREE |  |
| :---: | :---: |
| REQUIR | IRED 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 .. |
| TA 26 | Theatre Crafts II, or |
| TA 27 | 7 Introduction to Scene and Light Design,or |
| TA 36 | 6 Costume Design........................................3-4 |
| TA 28 | Introduction to Stage Makeup ............................ 2 |
|  | Total 29-30 |
| Recommended electives: TA 43, 40. |  |
| *TA 41 can be substituted for TA 42. |  |
| Notes: 1. An associate in arts degree will be awarded to any candidate who successfully completes a total of 60 units, which include associates degree requirements and a minimum of 24 units of course work listed above. |  |
| 2. Associate degree requirements are listed on page 29. General Education requirements are for transfer certificate are listed on page 36. |  |
|  | 3. Recommended electives for Physical Education: DANCE 10, 11, 12, 14, 16. |

## WELDING 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.

## ASSOCIATE IN SCIENCE DEGREE AND <br> CERTIFICATE OF ACHIEVEMENT <br> REQUIRED CORE COURSES

first YEAR
First Semester
Units
AT 10 Technical Computer Applications......................... 2
AT 130
MATH 101
Industrial Math, or
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 |  |
|  |  | Total 13 |

METAL FABRICATION OPTION - MAJOR \#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 |  |
| :---: | :---: |
| First Semester | Units |
| CADD 14 | Computer Aided Drafting.................................. 3 |
| WELD 3A | Welding Design and Fabrication ......................... 5 |
|  | Total 8 |
| Second Semester Units |  |
| WELD 3B | Advanced Welding Design and Fabrication........... 5 |
| Elective | ................................................................... 3 |
|  | Total 8 |

## PIPE AND STRUCTURAL STEEL CERTIFICATION OPTION - MAJOR \#8372

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 |  |  |
| WELD 4A | Heavy Plate, Structural Steel Welding |  |

Recommended Electives: CAM 10, CADD 24, CADD 34, ENGR 10, ENGR 11, WELD 19, WELD 56.
Note: Associate degree requirements are listed on page 29.

## WOMEN'S STUDIES - MAJOR \#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 violent-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.
ASSOCIATE IN ARTS DEGREE
PROGRAM REQUIREMENTS.20
REQUIRED CORE COURSES ..... Units
WSTS $10 \quad$ Changing Roles of Women .....  3
WSTS/HS 25 Assertive Behavior. .....  2
Total 5
COURSE OPTIONS: 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 $32 \quad$ Women and Work ..... 3
WSTS 42 Women and Chemicals ..... 2
WSTS/FN 43 Women's Nutrition ..... 2
BA $44 \quad$ Women in Management ..... 3
WSTS/GS 45 Re-Entry Career Planning ..... 1
WSTS/GS 46 Re-Entry Job Preparation. .....  .1

## WORK ASSESSMENT VOCATIONAL EDUCATION (WAVE) - MAJOR \#7002

The WAVE program is designed for students with barriers to employment; including but not limited to disabilities, CalWORKs, lack of employment history, and lack of job seeking skills. The program employs a variety of classroom and training modalities in order to prepare students for competitive and gainful employment. The WAVE program is a comprehensive three-component program consisting of assessment-Developing Individual Vocational Evaluations (DIVE); training—Situation Assessment, Worksite and Internship Model (SWIM); and job placement—Securing Appropriate Income \& Labor (SAIL). Each component is designed to integrate students into competitive employment by teaching fundamental skills in order to secure and retain employment.
CERTIFICATE OF COMPLETION Units
WaVE 201 Developing Ind Voc Ed (DIVE) ..........................1-3
WaVE 202 Situational Assessment Wrksite (SWIM)............1-12
WaVE 203 Secure Approp Income \& Labor (SAIL) ................. 2.5

## 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 California 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 Repeats | Max. Times Taken |
| :---: | :---: | :---: | :---: |
| AJ 260 (Repeats = 1) | 1 | 1 | 2 |
| ANTHR0 27 (Repeats $=2$ ) | 1 | 2 | 3 |
| ART 251 (Repeats $=3$ ) | 1 | 3 | 4 |

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 "Description of Courses" section of the catalog.

## Key to Graduation or Transfer Status Designations

The identification of the transfer 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 California State University transfer certification. Completion of all courses in the California State University General Education transfer certification pattern will permit a 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.

## 144 Course Descriptions

## 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 be taken prior to enrolling in the described course.

Corequisite indicates that the course must be taken simultaneously with another course if not already completed.
Prerequisite is defined to mean a condition of enrollment that a student must meet in order to register in a course or program. A student may challenge any prerequisite by completing the Prerequisite Challenge Form available in the Counseling Center.

## Course Numbering System

Associate degree applicable courses that are also transferable to baccalaureate institutions
Associate degree applicable courses that are NOT transferable to baccalaureate institutions

Nondegree applicable credit courses Noncredit courses

## 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 Survey of Financial Accounting
Accounting 260
Accounting 271
Accounting 272
Accounting Skills Lab
Accounting Using QuickBooks - Beginning
Accounting Using QuickBooks -Intermediate

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 220
Admin of Justice 230
Admin of Justice 231
Admin of Justice 232
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

Interview/Interrogation Techniques
Explosives Recognition/Response
EthDilemmas in Pub Sfty 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
Radar Operator
Force Option Simulator
Driver Awareness
Police Driving Simulator
Police Cadet Adm
FCC Cadet 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-
CDC Officers
Firearms Instructor Course
Field Training Officer
PR-24 Baton Instructor Course
Drug Influence-H \& S 11550

Admin of Justice 294
Admin of Justice 295
Admin of Justice 296
Admin of Justice 297
Admin of Justice 298
Admin of Justice 299
Air Conditioning 260B
Air Conditioning 260C
Air Conditioning 260D
Applied Technology 212 Art 251
Auto Tech 261
Auto Tech 261A
Auto Tech 261B
Auto Tech 261C
Auto Tech 262A (A6)

Auto Tech 262 B (A8)

Auto Tech 262 C (L1)

Auto Tech 281A
Auto Tech 281B
Auto Tech 282A
Auto Tech 282B
Auto Tech 283A
Auto Tech 283B
Auto Tech 284
Auto Tech 285
Auto Tech 292
Auto Tech 294
Biology 261
Biology 270
Business \& Technology 250
Business \& Technology 270
Business \& Technology 271
Business \& Technology 272
Business \& Technology 273
Business \& Technology 274
Business \& Technology 277
Cabinetmaking Tech 260
Cabinetmaking Tech 263
Child Development 261
Child Development 262
Computer Science 261
Decision Science 270
Dental Hygiene 200
Developmental Services 260
Developmental Services 262

Officer Safety
Traffic Accident Investigation
Homicide Investigation
Baton and Defense Tactics Seminar
Sexual Assault Investigation
Basic Bicycle Patrol
Electricity for Air Conditioning
Residential Heating
Advanced Troubleshooting
Computer Skills Lab
Open Art Studio
Clean Air Car—Diag \& Rep
Basic Clean Air Car Course (BCACC)
Advanced Clean Air II
BAR Update Training
Electrical/Electronic Training
Program—BAR/ASE (Alt)
Engine Performance Training
Program—BAR/ASE (Alt)
AOW Engine Performance Training
Program—BAR/ASE (Alt)
Automatic Trans
Automatic Trans
Suspen/Wheel Align
Auto Braking Systems
Tune-up \& Diag
Electrical Systems
Auto Air Conditioning
Auto Engines
Cert Preparatory
Lamp/Brk Adj Prep
Internet and Computer Skills Lab
Biology Readiness
Office Skills Labs
Business Math \& Ten Key
Grammar Fundamentals
Office Procedures
Filing
Introduction to Microsoft 0utlook
Accelerated Excel
Woodworking
Advanced Cabinetmaking Lab
Intro to Foster Parenting
Independent Living Skills
Internet and Computer Skills Lab
Business Math Skills
Clinical Dental Hygiene IV
Workability
Group Inter for Stud w/Disabilities

Developmental Services 265
Developmental Services 272
Developmental Services 273
Developmental Services 275
Developmental Services 276
Developmental Services 277
Developmental Services 278
Developmental Services 279 Modified Computer Applications
Developmental Services 280 SUCCESS Self-Exploration
Developmental Services 281 SUCCESS Eductnl \& Career Option
Developmental Services 282 Greenhouse Workforce Prep
Developmental Services 291 Strategies for Academic Success
Developmental Services 292 College Awareness Survival Skills
Education 200A CBEST Preparation: English
Education 200B CBEST Preparation: Mathematics
Electrical Systems Tech 261 Networking Essentials-
Electrical Systems Tech 262 Router Theory and Technology-
Electrical Systems Tech 263 Advanced Routing and Switching-
Electrical Systems Tech 264 Advanced Networking and
Electrical Systems Tech 272 Introduction to Electronics
Electrical Systems Tech 273 Industrial Motor Control
English $250 \quad$ Basic Writing
English 252 Reading Improvement
English $260 \quad$ Basic Reading
English $262 \quad$ Writing Improvement
English 265
English 277
English 278
English 279
English 281
English 282
ESL 262
ESL 263R
ESL 263W
ESL 264R
ESL 264W
ESL 265R
ESL 265W
Fire Technology 261
Fire Technology 261A
Fire Technology 261B
Fire Technology 261C
Fire Technology 261D
Guidance Studies 270
Health Science 211

Instructor Training Management-Instructor Training
Indiv Instruc Problems
Consumer Skills
Independent Living Skills
Horticulture Skills I
Horticulture Skills II

Modified Word Processor
$\qquad$


. Instructor Training Instructor Training
Adapted Computer Literacy

Reas \& Dec Mkg for Daily Liv Reading Skills
Reading Comprehension
Beg Spell and Vocab
Sentence \& Gram/Writing
Paragraph Writing
Basic Academic Study Skills
Reading and Vocabulary
Grammar and Writing
Reading and Vocabulary
Grammar and Writing
Reading and Vocabulary
Grammar and Writing
EMT 1 Refresher
EMT 1 Refresher (Fire Serv)
EMT 1 Refresher (Fire Serv)
EMT 1 Refresher (Fire Serv)
EMT 1 Refresher (Fire Serv)
Orientation for Academic Succ
Multi-Skilled Health Technician Training

Human Services 261
Human Services 262
Information Systems 231
Information Systems 238
Information Systems 239
Information Systems 260
Information Systems 261
Information Systems 272
Information Systems 274
Information Systems 275
Information Systems 276
Information Systems 277
Information Systems 278
Marketing 250
Marketing 251
Marketing 252
Marketing 253
Marketing 254
Marketing 255
Marketing 256
Math 250
Math 251
Math 255
Math 260A
Math 260B
Math 260C
Math 260D
Math 260E
Math 260F
Math 260G
Math 260 H
Math 265
Math 270
Math 277
Special Studies 277
WAVE 201
WAVE 202
WAVE 203
B. Noncredit

Apprenticeship 360
Apprenticeship 361/3B
Apprenticeship 361/6J
Clerical Training 370
Clerical Training 374
Clerical Training 376
Developmental Services 359
ST 300
Special Studies 377
Theatre Arts 348

Intro Foster Parent
Independent Living Skills
Network+ Preparation
A + Systems Software
INET + Preparation
Computer Skills Lab
Internet Skills Lab
Introduction to Computers
Beginning Excel
Accelerated Lotus
Accelerated dBASE
Accelerated Excel
Accelerated Access
Computerized Marketing
Introduction to Marketing
Customer Service
Personal Development
Business Presentations
Telemarketing
Call Center Telemarketing
College Arithmetic
Health Science Math
Pre-Algebra
Arithmetic Review: Whole Numbers
Arithmetic Review: Fractions
Arithmetic Review: Decimals
Arithmetic Review: Percents
Arithmetic Review: Measurement
Pre-Algebra: Equations \& Inequalities
Pre-Algebra: Word Problems
Pre-Algebra: Factoring
Math Problem Solving
Fundamental Math
Arithmetic for Learn Disabled
Credit, Nondegree SP ST
Developing Ind Vov Evaluations
Situational Assessment
Securing Approp Income \& Labor

Apprenticeship-First Aid
Diesl \& Hvy Dty Mech
Roofing
Office Asst Applications
Fundamentals of Literacy
General Office Techniques
Differential Learn Diag
Tutoring
Zero Unit, No Grade Sp St
Senior Play Production

Career \& Technology Center Courses
Auto Mechanics $371 \quad$ Engine Repair
Auto Mechanics 372
Auto Collision Repair 370
Indust Training 371
Maint Mechanic 370
Maint Mechanic 371
Maint Mechanic 372

Engine Performance
Auto Col Rep/Paint Refin
Warehouse and Distribution Careers
Fund-Weld/Machine Shop
Fund Hydraul/Pneumatics
Electrical Fundamentals

## SCCCD INTRA-DISTRICT

ARTICULATED COURSES, COMMON COURSES, AND IN-LIEU COURSES
This is a list of courses that Fresno City College and Reedley College (which includes the North Centers-Clovis, Madera and Oakhurst) have agreed to articulate with one another.
Note: Before registering for courses you want to use for transfer (for use in CSU GE, IGETC or to meet a major requirement at a university), you must verify that the course is listed on Fresno City College's or Reedley College's CSU GE or IGETC pattern or articulation list. Do not ask a friend! Check with the lists provided by Fresno City College, Reedley College and the North Centers-or see the Fresno City College or Reedley College catalogs.

| FRESNO CITY COLLEGE |  | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| ACCTG 4 A | Financial lccounting | ACCTG 1A | Principles of Acounting |
| ACCTG 4 B | Managgerial Accounting | ACCTG 1B | Principles of Acounting |
| ACCTG 32 | Complutiriad Accounting \& Puichlowis | ACCTG 31 | Computerized Accounting |
| ANTHRO 1 | Physical Anthropology | ANTHR0 1 | Physical Anthropology |
| ANTHRO2 | Cultural Anthropology | ANTHRO2 | Cultural Anthropology |
| ANTHR03 | Intro to Archaedlogy \& Prenistory | ANTHR03 | Intro to Archaeology \& Prenistory |
| ART2 | ArtAppreciaion | ART2 | ArtAppreciaion |
| ART5 | Atthistor 1 | ART5 | Ant History 1 |
| ART6 | Arthistor 2 | ART6 | Aithistory 2 |
| ART6 ${ }^{\text {H }}$ | Honors Atthistory 2 | ART6H | Honors Att History 2 |
| ART7 | Beginning Drawing | ART7 | Beginning Drawing |
| ART9 | Beginning Painting: Oil/Acrylic | ART9 | Beginning Painting: Oil/Acrylic |
| ART 10 | Beginning Ceramics | ART 10 | Beginning Ceramics |
| ART 12 | Cratt Design | ART 12 | Cratts Design |
| ART 13 | Beģinning Wataterolor Painting | ART 13 | Beginning Waterecolor |
| ART 17 | Intermediate Drawing | ART 17 | Intemediate Drawing |
| ART19 | Intermediate Painting: Oil/Acrylic | ART 19 | Intermediate Painting: Oil/Acrylic |
| ART 20 | Intermeliate Ceramics | ART 20 | Intermediate Ceramics |
| ART 23 | Intermediate Waterolor | ART23 | Intermediate Waterolor |
| ASL1 | Begining American Sign Language | ASL1 | Begginning American Sign Language |
| ASL2 | High Reginining tmeician Sign Lavgluge | ASL2 | High Beginning American Sign Langlage |
| ASL3 | Intemediaie merician Sigal Language | ASL3 | Intermediate American Sign Language |
| ASL 4 | High Inter American Sign Language | ASL 4 | High Inter American Sign Language |
| ASTR0 10 | Basic Astronomy | SCI3 | Introduction to Astronomy |
| AUTOT9 | Automotive Essentials | ACTOT9 | Automotive Essentials |
| BA5 | Business Communications | BA5 | Business Communications |
| BA 10 | Introduction to Business | BA 10 | Introduction to Business |


| FRESNO CITY COLLEGE |  | REEDLEY COLLEGE |  | FRESNO CITY COLLEGE |  | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Title | Course | Title | Course | Title | Course | Title |
| BA 18 | Business and the Legal Enviromment | BA18 | Business and the Legal Environment | CSCI 40 | Programming Concepts \& Method | ENCR 40 | Programming for Sci \& Engin |
| BA27 | Sutuents in Free Enterpiris | BA27 | Suudents in Free Enterpisise | CSCI 40 | Programming Concepts \& Methods I | CSCI 40 | Programming Concepts \& Methods I |
| BA33 | Human Relations in Business | BA33 | Human Relations in Business | CSCI 41 | Programming Concepts \& Meh II | CSCI 41 | Programming Concepts \& Meth II |
| BA34 | Fundamentala of Inresting | BA34 | Fundamentala of Inresting | DEESER 260 | Workability | DESSER 260 | Workability |
| BA38 | Operation of the Small Business | BA 38 | Operation of the Small Busines | DEESER 262 | Grup Ihearation forstudens with Disadilities | DEISER 262 | Group Interaction for Students with Disabilities |
| BA 40 | Supervision \& Leadership Skills | BA15 | Managemenent of People | DEESER 263 | Group Dynamics:İPeer Mentoring | DEISER 263 | Group DynamicsîPeer Mentoring |
| BIOL1 | Principles of Biology | BIOL1 | Principles of Biology | DEESER 264 | Transition to College | DEISER 264 | Transition to College |
| BIOL 4 | Principles of Zoology | BIOL 4 | Principles of Zoology | DEESER 272 | Consumer ${ }^{\text {Skills }}$ | DEISER 272 | Consumer Skills |
| BIOL 6 | Principles of Botany | BIOL 6 | Principles of Botany | DEISER 273 | IndependentiL Lining skill for SPRes Suments | DEISER 273 | Independent Living Skills |
| BIOL 20 | Human Anatomy | B1OL20 | Human Anatomy | DEESER 275 | Horticulure Skills I | DEISER 275 | Hoticuluture Skills I |
| BIOL22 | Human Physiology | BIOL 22 | Human Physioggy | DS23 | Staisisical Analysis | STAT 7 | Elementary Statisics |
| BIOL31 | Microbiology | BIOL 31 | Microbiology | DS23 | Statisical Analysis | STAT 7 H | Honos Elementary Staisisics |
| BT4 | Ten-Key Calualation | BA 46 | Calculator Aplications | DS 117 | Business Mathematics | DS 117 | Business Mathematics |
| B75 | Business Communications | BA5 | Business Communications | ECON 1A | Intro to Macroeconomics | ECON 1A | Intro to Nacroeconomics |
| BT11 | Todays 0 ffice | 0722 | Receptionist and Basic Telecommunications | ECON 1AH | Honors Introduction to Macoceoconomics | ECON 14H | Honors Introduction to Macroeconomics |
| CHDEV2 | Intro to Early Childhood Educ | CHDEV 2 | Intro to Early Childhood Educ | ECON 1 B | Intro to Microeconomics | ECON 1B | Intro to Nicroeconomics |
| CHDEV 6 | Infant-Child Healh \& Sadety | CHDEV 6 | Infant-Child Health \& Sadety | ECON 1BH | Honoss Intro to Nicroceconomics | ECON 1BH | Honors Intro to Nicirococomics |
| CHDEV7 | Infant Derelopment | CHDEV7 | Infant-Todder Development \& Care | EDLC 200A | CBEST Preparation: English | EDIC 200A | CBEST Preparation: English |
| CHDEV 8 | School Age Child: Growth \& Develop | CHDEV 8B | Programs for School Age Child Care | EDLC 200B | CBEST Preparation: Mathematics | EDLC 200B | CBEST Preparation: Mathematics |
| CHDEV8A | Prograns for School Age Child Care | CHDEV 8A | Prograns for School Age Child Care | ENGL 13 | Reading and Composition | ENGL 14 | Reading and Composition |
| CHDEV 11 | The Young Child with Special Needs | CHDEV 35 | Exceptional Children | ENGL 1 1HH | Honos Reading and Composition | ENGL 1 1/H | Honos Reading and Composition |
| CHDEVPSY 12 | Child Abse | CHDEV 12 | Child Abuse | ENGL 1B | Intro to the Study of Literature | ENGL 1B | Intro to the Study of Literature |
| CHDEV 30 | Child, Family and Community | CHDEV 30 | Child, Family and Community | EVIL 1 BH | Honos Intro to the Stuyy I Literature | ENGL 1 BH | Honoss Siterature |
| CHDEE 37A | Early Childhood Prog \& Procedures | CHDEV 37 A | Early Childhood Prog \& Procedures | ENCL3 | Critical Reading and Vriting | ENGL3 | Critical Reading and Writing |
| CHDEV 37B | Early Childhood Prog \& Procedures | CHDEV 37B | Early Childhood Prog \& Procedures | ENGL 3 H | Honos Critical Reading and Writing | ENGL 3H | Honors Critical Reading and Writing |
| CHDEVPSY 38 | Lifespan Development | CHDEVPSY 38 | Lifespan Development | ENIGL 4nA | Word Literature | ENCL 44 A | Word Literature |
| CHDEV 39 | Child Derelopment | CHDEV 39 | Child Derelopment | ENCL 4 4B | World Literature | ENGL 44 B | Word Literature |
| CHDEV 40A | Admin of Early Childhood Programs | CHDEV 40A | Admin of Early Childhood Programs | ENCL 46 A | English Literature to 1800 | ENGL 46A | English Literature to 1800 |
| CHDEV 40B | Adv Admin o E Early Childhood Programs | CHDEV 40B | Adv Admin of Early childhood Programs | ENCL 46 B | English Liteature from 1800 to Present | ENGL 46B | English Literature from 1800 to Present |
| CHDEV 45 | Superisiono faddult in ECEC Classroms | CHDEV 45 | Superision of Adults in ECE Classrooms | ENIGL 125 | Writing Skills for College | ENGL 125 | Writing Skills for College |
| CHEN 1 A | General Chemistry | CHEM IA | General Chemistry | ENGL 126 | Reading Skills for College | ENGL 126 | Reading Skills for College |
| CHEN IB | General Chemistry \& Lual Analysis | CHEM 1B | General Chemistry \& Qual Analysis | ENCL 250 | Basic Writing | ENGL 250 | Basic Writing |
| CHENIM 3 | Introductory General Chemistry | CHEM 3 A | Introductory General Chemistry | ENCLL 252 | Writing Improvement | ENGL 252 | Writing Improvement |
| CHEN 3 B | Introductor General Chem \& Biol Chem | CHEN 3B | Introductory General Chem \& Biol Chem | ENCL 260 | Basic Reading | ENGL 260 | Basic Reading |
| CHEN 8 A | Elementary Organic Chemistry | CHEM8 | Elementary Organic Chemistry | ENGL 262 | Reading Improvement | ENCL 262 | Reading Improvement |
| CHEL 28A | Organic Chemistry | CHEL 288 | Organic Chemistry | ENGR2 | Graphics | ENGR2 | Graphics |
| CHEM 288 | Organic Chemistry | CHEM 28B | Organic Chemistry | ENGR 4 | Engineering Materials | ENGR3 | Engineering Materials |
| CHEM 29A | Organic Chemistry Laboratory | CHEL 29A | Organic Chemistry Laboratory | EIGR6 | Cirauits with Lab | ENGR6 | Circuits with Lab |
| CHEM 298 | Organic Chemistry Laboratory | CHEM 298 | Organic Chemistry Laboratory | EIGR 8 | Statics | ENGR 8 | Statics |
| CLS21 | Chicano Literature | ENGL 49 | Latino \& Chicano Literature | ESL68 | Reading for ESL College Students | ENGL 126 | Reading Skills for College |
| CRIM 1 | Intro to Criminology | CJ1 | Intro to Criminal Justice | EST61 | Networking Fundamentals | IS 49A | LANFundamentids-CISCO 1 |
| CRIM3 | Legal Aspects of Evidence | CI3 | Criminal Evidence | EST62 | Router Theory \& Technology | IS 498 | Router Theory \& Technology - CIISCO II Tech |
| CRIM 4 | Princ \& Proced of the Jusice Sjstem | CJ 4 | Criminal Legal Procedure | EST63 | Adv. Routing \& Switching | IS40 | Ad. Routing \& Svithing - CIISCO III Svithing |
| CRIM5 | Community Reations | C]5 | Community Reataions | EST 64 | Adv. Networking \& Management | IS 40D | Adv. Network \& Man - CIISO IVMan |
| CRIM 6 | Concepts of Criminal Law | Cj6A | Criminal Law | FLLM 1 | Introduction to Film | FLLM 1 | Introduction to Film |
| CRIM 7 | Concepts of Enforcement Services | CJ7 ${ }^{\text {d }}$ | Police Operations \& Procedures | FN1 | Principles of Food Preparation | FN1 | Principles of Fod Preparation |
| CRIM8 | Criminal Investigation | CJ8 | Investigation of Crime Scene | FN35 | Nulutition and Health | FN35 | Nutrition and Health |
| CRIM 11 | Jurenile Delinquency | CJ 11 | Juverile Procedures | FN 40 | Nutrition | FN 40 | Nutrition |
| CRIM 12 | Criminal Justice Communications | CJ 12 | Justice Sjstem Communications | FN 41 | Sports Sutrition | FN41 | Sports Sutrition |
| CRIM 20 | Intro to Corrections | CJ 20 | Correctional Institutions | FN 42 | Child Nutrition | FN 42 | Child Nutrition |
| CSCI 20 | Programming inthe ForriRuL Language | ENGR 22 | FORTRAN 77 Programming | FRENCH 1 | Beginning French | FRENCH 1 | Beginning French |
| CSCI 20 | Programming int fePORTRNL Language | CSCI 20 | Programming in the FORTRAN Language | FRENCH2 | High Reginning french | FREECH2 | High Seginning French |
| CSCL 26 | Discrete Mathematis for Computerscience | cSCCI 26 | Discrete Mathematics for Computer Science | FRENCH3 | Intermediate French | FREICH3 | Intermediate French |


| FRESNO | CITY COLLEGE | REEDLEY COLLEGE |  | FRESNO CITY COLLEGE |  | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Title | Course | Title | Course | Title | Course | Title |
| FREICH 4 | High Intermediate French | FRENCH 4 | High Intermediate French | NATH 250 | College Arithmetic | MATH 250 | College Arithmetic |
| GEOG2 | Cultural Ceography | GEOG2 | Cultural Geography | MKTG 10 | Marketing | MKTG 10 | Marketing |
| GEOG 48 | World Geography | GEOG 4 A | World Geography | MKTG 11 | Salesmanship | MKTG 11 | Salesmanship |
| GEOG 4B | World Geography | GEOG 4B | World Geography | MKTG 12 | Advertising and Promotion | MKTG 12 | Advertising and Promotion |
| GEOL 1 | Physical Geology | GEOL 1 | Physical Geology | MKTG 14 | Retailing | MKTG 14 | Retailing |
| GEOL2 | Historical Ceology | GEOL2 | Historical Ceology | MKTG 17 | Visual Merchandising | MKTG 17 | Visual Merchandising |
| GERVAN1 | Beģining German | GERIAN 1 | Beginning German | MUS 12 | Music Appreciation | MUS 12 | Music Appreciation |
| GERVAN2 | High Beginning German | GERIAN2 | High Beginning German | MUS 16 | Jazz History and Appreciation | Mus 16 | Jazz History and Appreciation |
| GERIVA 3 | Intermedidite German | GERINA 3 | Intermediate Cerman | MUS 18 | Basic Conducting and Score Reading | MUS 18 | Basic Conducting and Score Reading |
| GERINAV 4 | High Intermediate Geeman | GERINAV 4 | High Intermedidite German | MUS 1A | MusicTheory I | MIS1A | Nusic Theory I |
| CS 47AB | College Study Skills | GS 47 | Learning Strategies | MUS 1B | Musis' Theory II | MUS 1B | Music Theory II |
| GS 53 | College and Life Management | CS53 | College and Life Management | MUS2A | Music Theory III | MUS2A | Music Theory III |
| GS 150 | College Introduction | GS 120 | College Introduction | MUS 2B | MusicTheory IV | MUS 2B | Music'Theory IV |
| HEC7 | Interio: Design | FIM 30 | Interior Design | MUS3 | Music Fundamentals | MLS3 | Music Fundamentals |
| HIST1 | Western Civilization to 1648 | HIST1 | Wessern Civilization to 1668 | MUS7A | EarTraning: Level I | MUS 7A | EarTraning: Level I |
| HIST 2 | Western Civilization Since 1648 | HIST 2 | Western Civilization Since 1648 | MUS 7 B | EarTraining: Level II | MUS7B | EarTraning: Level II |
| HST 11 | History of the United States to 1865 | HST 11 | History of the United States to 1865 | MUS 20 | Beginning Piano: Level I | MUS 20 | Beginning Piano: Level I |
| HST' 12 | History of the United States since 1865 | HIST 12 | History of the United States since 1865 | MUS21 | Beginning Piano: Level II | MUS 21 | Beginning Piano: Level II |
| HST 20 | Comparative Wordd Civilizationsto 1600 | HSTT 20 | Comparative Worid Civilizations to 1600 | MUS 22 | IntermediateAdranced Piano | MUS 22 | IntermediateAdranced Piano |
| HITH1 | Contemporary Health Issues | HITH1 | Contemporary Health Issues | MUS 27 | Begginning Guitar: Level I | MUS27 | Beginning Guitar: Level I |
| HITH2 | First Aid and Satety | HITH2 | First Aid and Sadty | MUS28 | Beginning Guitar: Level II | MUS28 | Beģinning Guitar: Level II |
| HONORS 1 | Honors Colloquium | HONORS 1 | Honors Colloquium | MUS 40 | Concert Band | MUS 40 | Concert Band |
| HONORS 1A | Honous Sci Coll: Biological Sci | HONORS 1 | Honors Colloquium | MUS41 | Jazz Ensembles | MUS41 | Jazz Ensenbles |
| HONORS 1B | Honos Him Coll: Ancentillordt othe Ren | HONORS 1 | Honors Colloquium | MUS68 | Symphonic Band | MUS 40 | ConcertBand |
| HONORS 16 | Honos Hum Coll: Reaisusmectopostmodem | HONORS 1 | Honors Colloquium | MUS69 | Wind Band | MUS 40 | Concert Band |
| HONORS 1D | Honos Bis and Eancollil Load Ean \& Ag | HONORS 1 | Honors Colloquium | PE4 | Badminton | PE4 | Beğining Badminton/Inter Badminton |
| HONORS 1E |  | HONORS 1 | Honors Colloquium | PE5 | Basketball | PE5 | Basketball |
| HONORS 1P | Honos Phi Theta Kapp Colloquium | HONORS 1 | Honors Colloquium | PE6 | Fitness and Health | PE6 | Fitness and Health |
| HONORS 1G | Honors Leadership Colloquium | HONORS 1 | Honors Colloquium | PE7 | Golf | PE7 | Golf |
| IS 15 | Computer Concepts | IS 15 | Computer Concepts | PE8 | Martial ArtsSelf Defense | PE8 | Martial Arts/Self Defense |
| IS 18 | Spreadsheet Fundamentals | IS 18 | Spreadsheet Fundamentals | PE 10 | Racquetball | PE 10 | Racquetball |
| IS 26 | Databose Fundamentals | IS 26 | Databsese Fundamentals | PE 12 | Swimming | PE 12 | Swimming |
| IS 40 | Internet Basics | IS 40 | Internet Basics | PE13 | Tennis | PE13 | Tennis |
| IS41 | World Wide Web Research | IS 41 | Wordd Wide Web Research | PE14 | Volleyball | PE 14 | Volleyball |
| journ 1 | Introduction to Nass Conmunications | jourv 1 | Introduction to Mass Conmunications | PE 20 | Care and Preerenion of Athletic Injuries | PE20 | Care and Prevention of Athletic Injuries |
| JoURN3 | Neuswriting | JoURN3 | Newswriting | PE 22 | Introduction to Physical Edication | PE 22 | Introduction to Physical Education |
| LINGG 10 | Introduction to Language | LINGG 10 | Introduction to Language | PE30A | Theory of Baseball | PE30A | Theory of Bxeball |
| LINGG 11 | Intro to Langulage for Edicators | LINGG 11 | Intro to Language | PE 30B | Competitive Basball | PE 30B | Compeitive Baseball |
| NATH 48 | Trigonometry | MATH 4 H | Trigonometry | PE30C | Off-Season Conditioning for Basedall | PE30C | Off-Sesaon Conditioning for Basedall |
| NATH 4 B | Precalalus | NATH 4 B | Precalaulus | PE31A | Theory of Basketball | PE31A | Theory of Basketall |
| NATH5 5 | Math Analysis I | MATH5 5 | Math Analysis I | PE31B | Competitive Baskethall | PE31B | Compeitive Basketball |
| NATH 5B | Math Analysis II | MATH SB | Math Analysis II | PE3IC | Offieseson Conditioning for Badeetall | PE3IC | Off-Sesaon Conditioning for Basketball |
| NATH6 | Nath Analysis III | MATH6 | Math Analysis III | PE33A | Theory of Football | PE33 | Theory of Football |
| NATH7 | Introduction to Differential Equations | MATH7 | Introduction to Differential Equations | PE 33B | Compeitive Footalll | PE33B | Compeitive Footall |
| NATH 10 A | Structure and Coneepts in Nathematiol | MATH 10 A | Structure and Concepts in Mathematios I | PE33C | Off-Sesson Conditioning for Footall | PE33C | Off-Sesson Conditioning for Football |
| NATH 108 | Structure and Coneepps in Nathematis II | MATH 10 B | Structure and Concepts in Mathematios II | PE34 | Theory of Golf | PE34 | Theory of Golf |
| NATH 11 | Elementary Staisitics | MATH 11STAT 7 | Elementary Statisics | PE 348 | Compeitive Golf | PE $34{ }^{\text {¢ }}$ | Compeetitive Golf |
| MATH21DS21 | Finite Mathematics | MATH21 | Finite Mathematics | PE34C | Off-Season Conditioning for Golf | PE34C | Off-Season Conditioning for Golf |
| NATH 26 | Elementary Linear Algebra | MATH26 | Elementary Linear Algebra | PE 55B | Pep and Cheer | PE35B | Pep and Cheer |
| NATH 45 | Contemporay Mathematics | MMTH 45 | Contemporary Mathematics | PE 37A | Theory of Sootball | PE37A | Theory of Soitball |
| NaTH 101 | Elementary Algbira | MATH 101 | Elementary Agebra | PE 37 | Competitive Softhall | PE 37B | Compeitive Softhall |
| MATH 102 | Plane Geometry | MATH 102 | Plane Ceometry | PE38A | Theory of Tennis | PE38A | Theory of Tennis |
| MATH 103 | Intermediate Algebra | MATH 103 | Intermediate Algebra | PE38B | Competitive Tennis | PE38B | CompetitiveTennis |


| FRESNO | CITY COLLEGE | REEDLEY | COLLEGE |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| PE38C | Off-Season Conditioning for Tennis | PE38C | Off-Sesson Conditioning forTennis |
| PE39A | Theory of Track \& Field | PE 39A | Theory of Track \& Field |
| PE398 | Competitive Track \& Fiedd | PE398 | Competitive Track \&Fied |
| PE30 | Off-Seson Conditioning for Track \& Fied | PE30 | Off-Seson Conditioning for Track \& Field |
| PE 40 A | Theory of Sollepyall | PE 40A | Theory of Solleyball |
| PE 40B | Compeitive Volletball | PE 40B | Compeititre Wolleyball |
| PE 40C | Off.Sesan Conditioning for billeyball | PE 400 | Off-Season Conditioning for Volleptball |
| PHILIA | Theories of Frowelege, Exis \& Bealty | PHILL 1 | General Philosophy |
| PHILIC | Ethics | PHILI 10 | Ethics |
| PHIL ID | World Religions | PHIL 1D | World Religions |
| PHILI 6 | Introduction to Logic | PHILL 6 | Introduction to Logic |
| PHILL 4 | Critical Ressoning | PHILI 4 | Critical Rexsoning |
| PHOT0 5 | Introduction to Photography | PHOTO 1 | Basics of Photography |
| PHOTO 10 | Basic Back \& White Photography | PHOTO 10 | Basic Black \& White Photography |
| PHYS2A | General Physics 1 | PHYS 2A | General Physics 1 |
| PHYS2B | Ceneral Physics 2 | PHYS 2B | General Physics2 |
| PHYS 41 | Physics for Scientists \& Engineers | PHIS 4 A | Physics for Scientists \& Engineers |
| PHYS $4 B$ | Physics for Scientists \& Engineers | PHISS 4 B | Physics for Scientists \& Engineers |
| PHYS 40 | Physics for Scientists \& Engineers | PHIS 40 | Phyics for Scientists \& Engineers |
| POISCI 10 | American Instituions | POLSCCI 110 | American Instituions |
| POLSCI2 | American Goverrnment | POLSCIL | American Gorererment |
| PSY2 | General Psychology | PSY2 | General Psychology |
| PSY 2 H | Honors Seneral Psychology | PSY 2 H | Honors General Psychology |
| PSY5 | Social Psychology | PSY5 | Social Psychology |
| PSY 25 | Human Sexulality | PSY25 | Human Sexuality |
| PSY/CHDEV 12 | Child douse | CHDEV 12 | Child dobse |
| PSY33 | Personal \& Scial Adijusment | PSY 33 | Pessonal \& Scial Adiussment |
| PSY/CHDEV38 | Lifespan Development | PSY/CHDEJ 38 | Lifespan Development |
| RE 40 | Real Estate Principles | RE 140 | Real Estate Principles |
| RE 41 | Real Estate Practice | RE141 | Real Estate Practice |
| RE 42 | Legal Aspects of Real Estate | RE 142 | Legal Aspects of Real Estate |
| RE 43 | Real Estate Appraisal I | RE 143 | Real Estate Appraisal |
| SOC 1A | Introduction to Sciology | SOC 14 | Introduction to Sciology |
| SOC2 | American Minority Groups | SOC2 | American Ninoity Groups |
| SOC32 | Courship, Marriage, Divorce | SOC32 | Courship, Marriage, Divorce |
| SPAN1 | Beginning Spanish | SPAN 1 | Beginning Spanish |
| SPAI2 | High Beginining Spanish | SPAN2 | High Beginning Spanish |
| SPAN3 | Intermeliate Spanish | SPAV 3 | Intermeliate Spanish |
| SPAN4 | High Intermediate Spanish | SPAN 4 | High Intermediate Spanish |
| SPEECH1 | Introduction to Public Speaking | SPEECH1 | Introduction to Public Spaking |
| SPPECH2 | Intepersonal Communications | SPEECH2 | Intepersonal Communications |
| SPEECH 12 | Fundamentala of Inteprectaion | SPEECH 12 | Fundamentala of Interpretation |
| TA 30 | Theatre Appreciaion | SPEECH 30 | Theatre Appreciation |
| TA 41A | Beģinning Acting | SPEECH 39A | Elementary Techniques of Acting |
| TA 43B | Intermediate Acting | SPEECH 39B | Intermediate Techniques of Acting |
| VEELD 24 | Intro to Welding Technology | MFGT 32 A | Basic Velding |
| WELD 2 2B | Advanced Processes MIG \& TIG | MFGT 32 B | Welding (MIIG-TIG) |
| WELD 3 3 | Weding Design \& Fabrication | MFGT 33 A | Welding Fabrication |
| WEELD 3 B | Adv Welding Design \& Fabrication | MFGT 33B | Advanced Welding Fabr - Certification |

## COURSES

## ACCOUNTING (ACCTG)

## 4A 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.

An overall examination of the accounting process that includes identification, recording, and communication of the economic events of an organization to interested users of financial information. The areas of transaction analysis, theory of debits and credits, classification of accounts, accounting principles, and preparation and interpretation of financial statements as applied to corporations will be studied. (CAN BUS 2) (A, CSU, UC)

## 4B MANAGERIAL ACCOUNTING

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A.
An overall examination of the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of financial information used by management to plan, evaluate, and control and to assure appropriate use of and accountability for its resources. Accounting for manufacturing companies, managerial controls, budgeting, and financial statement analysis will be studied. (CAN BUS 4) (A, CSU, UC)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

 1-4 units, $($ Repeats $=3)$COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 32 COMPUTERIZED ACCOUNTING \& QUICKBOOKS

3 units, 2 lecture hours, 2 lab hours, (Formerly Accounting 31)
PREREQUISITE: Accounting 4A or Business \& Technology 131. ADVISORY: IS 15 , or equivalent, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to accounting procedures and applications on microcomputer based software for accountants and business managers including general ledger, accounts receivable, accounts payable, inventory, and payroll. Utilize two accounting software packages including (1) Integrated Accounting Software and (2) QuickBooks. (A, CSU)

## 34 ACCOUNTING SPREADSHEETS

3 units, 3 lecture hours, 1 lab hour
COREQUISITE: Accounting 4A or Business \& Technology 131.
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)

## 51 INTERMEDIATE ACCOUNTING

4 units, 4 lecture hours, 1 lab hour, (Formerly
Accounting 51 and 151)
PREREQUISITE: Accounting 4A. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Preparation and analysis of the balance sheet, income statement, and statement of cash flows. The following areas will be covered in this course: basic accounting theory, the conceptual framework underlying financial accounting, the time value of money, accounting theory underlying current and fixed assets, and accounting theory applicable to current liabilities, contingencies, and long-term liabilities. (A, CSU)

## 52 COST ACCOUNTING

3 units, 3 lecture hours, 1 lab hour, (Formerly
Accounting 52 and 152)
PREREQUISITE: Accounting 4B. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Emphasis is given to the three functions of management which include planning, organizing, and controlling. In-depth examination of job order, process, and activity based cost systems; standard costing; completion of the master budget; flexible budgeting; capital budgeting. Computer spreadsheets will be utilized in this course. (A, CSU)

## 53 TAX ACCOUNTING-MANUAL AND COMPUTERIZED

3 units, 3 lecture hours, 1 lab hour, (Formerly
Accounting 53 and 153)
PREREQUISITE: Accounting 4A or Business \& Technology 131. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Covers individual income taxes including calculation of gross income, exclusions, deductions, losses, and property transactions. Requires students to utilize a computerized tax system to reinforce concepts and methodology presented in the course. (A, CSU)

## 54 AUDITING

3 units, 3 lecture hours, (Formerly Accounting 54 and 154)

PREREQUISITE: 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, CSU)

## 55 ACCOUNTING METHODS

1 unit, 1 lecture hour
COREQUISITE: Accounting 4A or Business \& Technology 131.
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 131.
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 131 or Accounting 4A.
Basic computerized accounting using the QuickBooks program. (A, CSU)

## 71 ACCOUNTING USING QUICKBOOKS—BEGINNING

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (Formerly Accounting 271)
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. (A, CSU)

## 72 ACCOUNTING USING QUICKBOOKS—INTERMEDIATE

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks),
(Formerly Accounting 272)
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$2 \mathrm{~s}, 1099 \mathrm{~s}, 940 \mathrm{~s}$ and 941 s ; setting up and managing inventory; and creating graphs using QuickBooks. (A, CSU)

## 73 MAS90 FUNDAMENTALS

2 units, 2 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A or Business \& Technology 131.
MAS90 applications including setting up companies, general ledger, sales order processing, accounts receivable, purchasing, accounts payable, payroll, and inventory management. (A, CSU)

## 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.

Double-entry bookkeeping, completion of transaction analysis, and preparation of financial statements.

## 260 ACCOUNTING SKILLS LAB

1 unit, 3 lab hours, (Repeats = 3), (Formerly
Accounting 60)
COREQUISITE: Accounting 4A or Business \& Technology 131.
Supervised application of accounting principles and concepts. Students will reinforce accounting concepts learned in the classroom and develop prob-lem-solving abilities. Final grade will be based on hours worked in lab.

## ADMINISTRATION OF JUSTICE <br> SEE CRIMINOLOGY

## 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 <br> . 2 units, 8.5 lecture hours, (1 week), (Credit/No Credit), (Repeats $=3$ ), (Formerly Administration of Justice 102) <br> PREREQUISITE: None. <br> 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 <br> .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)
PREREQUISITE: 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, 33.6-42 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.

## 220 RADAR OPERATOR

0.5 units, 15.2 lecture hours, 10 lab hours, (1 week), (Credit/No Credit), (Repeats = 3)
PREREQUISITE: Sworn peace officer or AJ 270.
Proper operation of police radar devices including history of radar operation, principles of operation and laws relevant to radar operation.

## 230 FORCE OPTION SIMULATOR

0.1 unit, 2.1 lecture hours, 2.1 lab hours, (1 week), (Credit/No Credit), (Unlimited repeats)
PREREQUISITE: AJ 270.
Officer situations requiring use-of-force decisions. Utilization of communication and decision-making skills depending upon video scenarios.

## 231 DRIVER AWARENESS

0.2 units, 2.2 lecture hours, 6.2 lab hours, (1 week), (Credit/No Credit), (Unlimited repeats) PREREQUISITE: AJ 270.
Reinforcement of basic driver safety rules and principles. Completion of a driving course demonstrating proficiency in turning, parking, steering and braking.

## 232 POLICE DRIVING SIMULATOR

0.1 unit, 2.1 lecture hours, 2.1 lab hours, (1 week), (Credit/No Credit), (Unlimited repeats)
PREREQUISITE: Sworn peace officer or AJ 270.
Defensive driving review and emergency vehicle operation principles through the use of a driving simulator. Dangerous driving scenarios in a controlled training environment.

## 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. Submit fingerprint cards to the Department of Justice for background clearance. Physical Exam, including an electrocardiogram (EKG) printout. OR, be sponsored by a law enforcement agency.

## 154 Administration of Justice

Satisfies the requirements of the California Commission of Peace Officer Standards and Training (POST) for Basic Police Academy training 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), (Unlimited Repeats), (Formerly Administration of Justice 72 and Administration of Justice 75)
PREREQUISITE: 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 fulltime 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)
PREREQUISITE: 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)
PREREQUISITE: 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)
PREREQUISITE: 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. A pre-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 \& S 11550 suspects and prepare the officer for court. A materials fee will be charged.

## 156 Aerospace Studies

## 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 (HPN 110.5) 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
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, UC)

## 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, UC)

## 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, UC)

## 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, UC)

## 3 LEADERSHIP LABORATORY <br> 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)

## 5 DRILL AND CEREMONY FUNDAMENTALS <br> 1 unit, 3 lab hours, (Repeats = 3) <br> PREREQUISITE: None. <br> The elements of military drill, individual and group precision movements, development of command voice; technical, stylistic and aesthetic aspects of creative drill maneuvers; encompasses both rehearsal and public performance. (A, CSU)

## AFRICAN-AMERICAN STUDIES

(AFRAM) 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.

The African-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.

A creative multi-discipline workshop based on the history and culture of the African-American. (A, CSU-GE)

## 13 AFRICAN-AMERICAN MUSIC FROM PRE-SLAVERY TIMES TO 1940

3 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 PRESENT

3 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
ADVISORY: 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-GE, 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 Arrica'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.

A survey 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 $=3$ ), (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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-4 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be
enrolled in at least one other course. Supervised employment directly related to the student's major: Offered under specific majors.

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. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 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, singlephase 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. Airflow 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 ESL 67 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 ESL 67 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) <br> 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-preservation 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 mid20th 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 AREAS

2 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 humans to non-human life-forms, especially the primates; the fossil record, the role of culture in human evolution; and the concept of race. (CAN ANTH 2) (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 hoursADVISORY: 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 INTRODUCTION TO ARCHAEOLOGY: METHODS AND THEORY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Development of archaeology as an academic discipline. Includes objectives and methods of modern archaeology: data collection, analysis, and interpretation using examples from archaeological research around the world; standards of field work, health, and safety; career options. (A, CSU)

## 5 ANALYTICAL METHODS IN ARCHAEOLOGY

4 units, 3 lecture hours, 3 lab hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 , and Math 101 recommended.

The archaeological laboratory and its relationship to archaeological project development and organization; artifact identification, analysis, and cataloging processes; methods of archeometric analysis. (A, CSU)

## 6 FIELD ARCHAEOLOGY

1-2 units, 1 or 2 lecture hours, 3 or 6 lab hours, ( 9 weeks), (Repeats $=3$ )
COREQUISITE: Anthropology 4. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Field experience in archaeology. Development of practical skills including archaeological survey, excavation, mapping, and site recordation, artifact; feature, site, and cultural landscape identification in field situations; and logistics of archaeological projects, including planning for transportation, equipment, supplies, food, water, and shelter required to complete an archaeological project. Required orientation meeting prior to field trip. (A, CSU)

## 7 MUSEUM STUDIES IN ANTHROPOLOGY

3 units, 2 lecture hours, 3 lab hours
COREQUISITE: Anthropology 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Survey of anthropological museum practice with introduction to history and ethics of acquisition; methods and skills of basic collections management, exhibit development, and administration. (A, CSU)

## 13 ANTHROPOLOGY OF MAGIC, WITCHCRAFT, AND RELIGION <br> 3 units, 3 lecture hours <br> ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. <br> A cross-cultural study of the forms and functions of supernatural beliefs and associated rituals primarily in nonwestern cultures. (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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

Success on the job, 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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 MESOAMERICAN CIVILIZATIONS AND CULTURES

3 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.

A survey 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 STUDY ABROAD

1-3 units, 1-3 lecture hours, $($ Repeats $=3)$
PREREQUISITE: Anthropology 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Cultural experience in another country. Focus may be ethnographic, archaeological, biological, or linguistic anthropology, or a combination of the four. Location and duration of course to be determined. (A, CSU)

## 30 TOPICS IN ANTHROPOLOGY

1-4 units, 1-3 lecture hours, 0-9 lab hours, (Repeats
= 3)
PREREQUISITE: Anthropology 2. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Examination of topics, current trends, and/or issues in the subdisciplines of anthropology not covered by regular catalog offerings. Course content and unit credit to be determined by faculty. May be offered in seminar, lecture, and/or laboratory format. Recommended preparation varies with topic. (A, CSU)

## 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)

## 162 Apprenticeship Training

## 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, porffolios, 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) <br> Apprenticeship training courses are designed for those currently employed and indentured in the specific trade. <br> For specific apprenticeship training program requirements refer to the Associate Degree and Certificate Programs section of this catalog.

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL <br> 1-4 units, (Repeats = 3)

COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 360 APPRENTICESHIP-FIRST AID

0 units, 6 lecture hours, 2 lab hours, (1 week),
(Repeats = 1)
PREREQUISITE: Apprenticeship status
First aid for identifying, preventing, and caring for bleeding, sudden illness, and injuries. CPR for adult breathing, choking, and cardiac emergencies.

## AUTOMOTIVE AND HEAVY-DUTY ELECTRICAL

Courses required for this apprenticeship program are listed on page 90.

## AUTOMOTIVE MECHANICS

Courses required for this apprenticeship program are listed on page 91.

## BODY AND FENDER

Courses required for this apprenticeship program are listed on page 91.

## COOK

Courses required for this apprenticeship program are listed on page 91

## DIESEL AND HEAVY-DUTY MECHANICS

Courses required for this apprenticeship program are listed on page 92.

## 361/3B DIESEL \& HEAVY-DUTY MECHANICAL

4 lecture hours, (Open Entry/Open Exit), (Formerly
Apprenticeship Training 61/63B)
PREREQUISITE: Apprenticeship status.
Diesel engines, safety, fuel and oil systems tools, and lubrication. Diesel drive train components. Heavy-duty diesel accessories, and electrical systems.

## ELECTRONICS

Courses required for this apprenticeship program are listed on page 92.

## MACHINE SHOP

Courses required for this apprenticeship program are listed on page 92.

## PARTSCLERK

Courses required for this apprenticeship program are listed on page 93.

## R00FING

Courses required for this apprenticeship program are listed on page 93.

## 361/6J R00FING

4 lecture hours, (Open Entry/Open Exit), (Formerly
Apprenticeship Training 61/66J)
PREREQUISITE: 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 93.

## WELDING

Courses required for this apprenticeship program are listed on page 94.

## ARCHITECTURE (ARCH)

## 10 INTRODUCTION TO DRAWING AND PERSPECTIVE

2 units, 1 lecture hour, 3 lab hours
PREREQUISITE: 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 DESIGN1 unit, 1 lecture hour
PREREQUISITE: None.
Familiarization with architecture, engineering, city planning, construc-
tion 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
PREREQUISITE: 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
PREREQUISITE: 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)
PREREQUIITTE: 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 <br> 3 units, 2 lecture hours, 3 lab hours <br> PREREQUISTTE: 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
PREREQUISTTE: 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 32.

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)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Introduction to the visual arts through lectures/discussions covering: a) the way artists speak through the formal Elements and Principles of Visual Language as well as through their choices of art Media and subject matter; b) how these formal properties contribute to the content and meaning of artwork; and c) the evolution of these formal properties through the history of the visual arts in Western European culture as well as their relationships to the art of 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. A foundation course stressing visual perception and an effective knowledge of the graphic means of expression and communication. Required for art majors. (CAN ART 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 Western Art from prehistory to the Gothic period that may include one or more areas of non-Western art from the same time period. (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 in the college catalog.

A survey of the Western Art from prehistory to the Gothic period that may include one or more areas of non-Western art from the same time period. 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)

## 6 ART HISTORY 2

3 units, 3 lecture hours, (Formerly Art 26)
ADVISORY: Eligibility for English 1A recommended.
A survey of Western Art from the beginning of the Renaissance to the present that may include one or more areas of non-Western Art from the same time period. (CAN ART 4) (A, CSU-GE, UC, I)

## 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 Western Art from the beginning of the Renaissance to the present that may include one or more areas of non-Western Art from the same time period. 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)

## 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 observational drawing, drawing materials (traditional and nontraditional), the formal elements of visual language (line, value, texture, shape, volume, color), composition, and meaning in visual image making. (CAN ART 8) (A, CSU-GE, UC, I)

## 8 BEGINNING FIGURE 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)

## 11 BEGINNING SCULPTURE

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 17A)
ADVISORY: Eligibility for English 125 and 126, or English 153, or ESL 67 and 68, and Math 101 recommended.

Creative self-expression in a variety of sculptural media including but not limited to clay, steel fabrication, bronze casting, stone, wood, plaster and new media. (CAN ART 12) (A, CSU-GE, UC)

## 12A BEGINNING CRAFTS: LIVING TRADITIONS

3 units, 2 lecture hours, 4 lab hours, (Formerly Art 48 and Art 12)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Completion of or concurrent enrollment in Art 3 and/or Art 4 recommended.

Exploration of the materials, tools, and processes of a variety of craft media in light of their contemporary viability as well as their historical and cultural traditions. (A, CSU-GE)

## 12B INTERMEDIATE CRAFTS: LIVING TRADITIONS

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3) PREREQUISITE: Art 12A.
Further exploration of the materials, tools, and processes of a variety of craft media in light of their contemporary viability as well as their historical and cultural traditions. (A, CSU)

## 13 BEGINNING WATERCOLOR PAINTING

3 units, 2 lecture hours, 4 lab hours
ADVISORY: Art 3 and 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, (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)
PREREQUISITE: Art 7, or demonstration of comparable skill level to be determined by testing and/or portfolio of past drawing work.

A further exploration of the creation of drawn images as effective vehicles for visual communication. (A, CSU-GE, UC)

## 18 INTERMEDIATE FIGURE DRAWING AND ANATOMY

3 units, 2 lecture hours, 4 lab hours, (Formerly Art
8B)
PREREQUISITE: Art 8, or demonstration of comparable skill level to be determined by testing and/or portfolio of past life drawing and anatomy work.

Further study theory, 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)
PREREQUISITE: Art 9, or demonstration of comparable skill level to be determined by testing and/or porffolio 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)
PREREQUISITE: 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)
PREREQUISITE: Art 11, or demonstration of comparable skill level to be determined by testing and/or portfolio of past sculpture work.

Concentrated self-expression in a variety of sculptural media including but not limited to clay, steel fabrication, bronze casting, stone, wood, plaster, and new media. (A, CSU, UC)

## 22A TEXTILE DESIGN: HAND PAPERMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3),
(Formerly Art 49 and Art 22)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Completion of or concurrent enrollment in Art 3 and/or Art 4 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)

## 22B TEXTILE DESIGN: BASIC TEXTILE STRUCTURES

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 recommended. Completion of or concurrent enrollment in Art 3 and/or Art 4 recommended.

Introduction to basic textile structures to include: hand-spinning, feltmaking, warp, and weft face weaving and various basketry techniques. Development of personal visual ideas through the use and combination of these fiber materials and processes. (A, CSU)

## 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)

## 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, UC)

## 24B LITHOGRAPH 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 lithograph printmaking processes, including experimentation in twelve techniques or combinations of techniques within the lithograph process. (A, CSU, UC)

## 24C RELIEF PRINTMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3)$
PREREQUISTTE: 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, UC)

## 24D SCREENPRINTING

3 units, 2 lecture hours, 4 lab hours, $($ Repeats $=3)$
PREREQUISTTE: 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, UC)

## 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, I)

## 27 ADVANCED DRAWING

3 units, 2 lecture hours, 4 lab hours
PREREQUISTTE: 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)

## 28 ADVANCED FIGURE DRAWING AND ANATOMY

3 units, 2 lecture hours, 4 lab hours, $($ Repeats $=1)$
PREREQUISTTE: Art 18, or demonstration of comparable skill level to be determined by testing and/or portfolio of past figure drawing and anatomy work.

Advanced study, theory, and practice of drawing the human figure from models. (A, CSU)

## 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)

## 32A BEGINNING JEWELRY AND METALSMITHING

3 units, 2 lecture hours, 4 lab hours
ADVISORY: Eligibility for Math 101, and English 125 and 126 or English 153 or ESL 67 and 68 recommended. Completion of or concurrent enrollment in Art 3 and/or Art 4 recommended.

Introduction to a wide-range of methods, techniques, and materials used to create small metal objects and jewery. The formation and construction of functional and non-functional objects will be explored. (A, CSU)

## 32B INTERMEDIATE JEWELRY AND METALSMITHING

3 units, 2 lecture hours, 4 lab hours, ( Repeats $=3$ ) PREREQUISITE: Art 32A.
Intermediate work in a wide-range of methods, techniques and materials used to create small metal objects and jewelry. The formation and construction of functional and nonfunctional objects will continue to be explored. (A, CSU)

## 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 or 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 organization. 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-GE, UC, I)

## 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-GE, UC, I)

## 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, printmaking, painting, sculpture, textiles, jewelry).

Supervised art practice for students concurrently enrolled in art 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, I)

## 10 HMONG CULTURE

3 units, 3 lecture hours
ADVISORY: 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, UC)

## 15 INTRODUCTION TO ASIAN-AMERICANS

3 units, 3 lecture hours
ADVISORY: 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)

## 30 ASIAN-AMERICAN WOMEN

3 units, 3 lecture hours, (See also Women's Studies 30)

ADVISORY: Asian-American Studies 15, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Historical experiences of early and later Asian immigrant women. Emphasis is on Asian American women today. Topics include growing up Asian American, relationship with parents, marriage, identity, raising children, doll image, voice, and American feminism. (A, CSU)

## 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 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 ESL 67 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 ESL 67 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 ESL 67 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 ESL 67 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 materials used in 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 ESL 67 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 materials used 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 ESL 67 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 materials used in 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 ESL 67 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
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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

Success on the job, 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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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. 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. (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) CHASSIS SYSTEMS I 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), WebBased 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)

## 58A INDIVIDUALIZED SKILLS TRAINING (IST) CHASSIS SYSTEMS II LABORATORY <br> 1 unit, 8 lab hours, ( 9 weeks), (Repeats $=3$ ) <br> ADVISORY: Eligibility for English 125 and 126 or English 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), WebBased Training (WBT), and/or Video-Based Training (VBT) with instructor supervision. Provides current and up-to-date technology in advanced chassis systems for students pursuing a career in automotive technology. Designed to accompany work experience in the trade. (A, CSU)

## 58B INDIVIDUALIZED SKILLS TRAINING (IST) ENGINE/ PROPULSION SYSTEMS LABORATORY <br> 1 unit, 8 lab hours, ( 9 weeks), (Repeats = 3) <br> ADVISORY: Eligibility for English 125 and 126 or English 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), WebBased Training (WBT), and/or Video-Based Training (VBT) with instructor supervision. Provides current and up-to-date technology in engine/propulsion systems for students pursuing a career in automotive technology. Designed to accompany work experience in the trade. (A, CSU)

## 58C INDIVIDUALIZED SKILLS TRAINING (IST) POWER TRAIN SYSTEMS LABORATORY

1 unit, 8 lab hours, ( 9 weeks), (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English 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), WebBased Training (WBT), and/or Video-Based Training (VBT) with instructor supervision. Provides current and up-to-date technology in power train systems 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. ADVISORY: 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 BASIC CLEAN AIR CAR COURSE (BCACC)

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.

Prepares students/technicians for the Bureau of Automotive Repair (BAR) emission testing procedures and guidelines. Emphasis on theory, diagnosis, and repair of emission related systems and components in the On Board Diagnostics 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 and/or intern Technician license. (Note: Basic Area Technician training program certified.)

## 261B ADVANCED 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 (BAR) Enhanced Area emission testing procedures and guidelines. Emphasis on theory, diagnosis, and repair of emission related systems and components in the On Board Diagnostics 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.)

## 261C BAR UPDATE TRAINING

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 new Bureau of Automotive Repair (BAR) procedures and guidelines smog check technicians must follow when performing emission inspections and certifying vehicles in the Basic and Enhanced Smog Check Program areas. 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 and/or granted renewal of applicable license. (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 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 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)
PREREQUISITE: 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 = 3),
(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, CV joints, 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 the job, 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 ATGM 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. 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. 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. 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. 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. 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 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
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 pre-education 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. Completion 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)

## 5 HUMAN 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.

An overview of the cellular, molecular, genetic, and systems basic of life with an emphasis on the human body. For allied health majors. Fulfills prerequisites for Biology 20, 24, 31. (A, CSU, UC)

## 6 PRINCIPLES OF BOTANY

5 units, 3 lecture hours, 6 lab hours, (Formerly Botany 1)
PREREQUISITE: Biology 1 or Biology 3 or equivalent. Completion 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. Completion within the last 5 years recommended. ADVISORY: 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 3 A 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.
PREREQUISITE: 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.
PREREQUISITE: Biology 8A or equivalent. ADVISORY: 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 Western 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
PREREQUISITE: 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
PREREQUISITE: Biology 20 or equivalent and Chemistry 3A 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 3 A 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. (CAN BIOL 14) (A, CSU-GE, 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)

## 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 $=3$ )
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.

## 270 BIOLOGY READINESS

3 units, 2 lecture hours, 2 lab hours, (Formerly
Biology 70)
PREREQUISITE: None.
Biological principles and concepts with special emphasis on self-improvement 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)
PREREQUISITE: 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.C. 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.C. 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.C./I.A.P.M.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.C./I.A.P.M.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.C. 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. ADVISORY: 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.C. 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.C. certification. (A, CSU)

## BUILDING TECHNOLOGY SEE ARCHITECTURE OR CONSTRUCTION

## BUSINESS ADMINISTRATION (BA)

## 5 BUSINESS COMMUNICATIONS

3 units, 3 lecture hours, (See also Business \&
Technology 5)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Business \& Technology 1 or knowledge of proper business letter format and ability to type 25 words per minute 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, cafeteria 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, UC)

## 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 <br> 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, I)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 non-western 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: BA 18. 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 accidents, 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 personal 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.

Examines the integration of personal financial management with physiological and psychological well-being and the life-long impact financial decisions have on individuals, families and society-at-large. Topics include tax strategies; financial planning strategies; financial monitoring and reporting; money \& credit management; home ownership; home, health, auto and disability insurance; saving and investing; and retirement 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. (A, CSU)

## 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.

A systematic 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. (A, CSU)

## 40 SUPERVISION AND LEADERSHIP SKILLS

3 units, 3 lecture hours, (See also Management 40), (Formerly BA 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 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, MBO, 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)

## 48 INTRODUCTION TO ECOMMERCE

3 units, 3 lecture hours, (Formerly eCommerce 1)
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)

## 50 BUSINESS CONCEPTS

1.5 units, 1.5 lecture hours, ( 9 weeks), (Formerly Business Administration 9)
ADVISORY: 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
ADVISORY: 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 basic correspondence, letters, memos, tables, and reports, using current word processing program. (A, CSU)

## 2 WORD PROCESSING I

3 units, 3 lecture hours, 2 lab hours, (Formerly BSS 1 B and Business Information Processing 2)
ADVISORY: BT 1 or keyboard 25 words per minute and ability to keyboard by touch. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Building typing speed and accuracy; producing and formatting advanced correspondence, letters, memos, reports, tables, and business forms using a current word processing program. (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. (Not open to students currently enrolled in BT 7, BT 8, BT 28, and/or BT 29.) (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)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Business \& Technology 1 or knowledge of proper business letter format and ability to type 25 words per minute recommended.

Business letters, memos, and some report writing with emphasis on organization, correctness, completeness, conciseness, and tone. (A, CSU)

## 7 WORDPERFECT I

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (Repeats $=3$ ), (Formerly Business Information Processing 21A, Business \& Technology 7, and Business \& Technology 107)
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, CSU)

## 8 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 \& Technology 8 and Business \& Technology 108)
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, CSU)

## 9 COMPUTER APPLICATIONS

3 units, 3 lecture hours, 2 lab hours, (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, and Math 101 recommended.

An introduction to integrated software for office application using microcomputers, including the concepts of word processing, spreadsheets, graphics, database, and electronic communication using Microsoft Office. (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.

General duties of a receptionist including telephone techniques, telecommunications, handling mail, scheduling appointments, and making travel arrangements both manually and via the internet. (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. (A, CSU)

## 14 WINDOWS

1.5 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (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)

## 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats $=3$ ), (Formerly Secretarial Science
19 and Business General Office 19)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 for students preparing to enter the workforce. 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 career success. (A, CSU)

## 24 BEGINNING EXCEL

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (See
also Information Systems 74), (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)
ADVISORY: 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
ADVISORY: 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

1 unit, 1 lecture hour
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, 2 lecture hours, 3 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)

## 184 Business \& Technology

## 112 BUSINESS ENGLISH

2 units, 2 lecture hours, (See also English 159), (Formerly Business Information Processing 59 and Business \& 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 \& Technology 15) PREREQUISITE: None.
Review of math fundamentals involving fractions, decimals, percents, and measurements with application problems related to business and technology. (A)

## 116 SPELLING AND VOCABULARY BUILDING

2 units, 2 lecture hours, (Formerly BSS 61 and Business General Office 61 and Business \& Technology 16)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A rules 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 \& Technology 22)
PREREQUISITE: BT 1 or equivalent.
Techniques and practice for improving keyboard speed and accuracy in order to meet certificate requirements. (A)

123 TEN-KEY SKILLBUILDING
1 unit, 1 lecture hour, 3 lab hours, ( 9 weeks), (Credit/ No Credit), (Open Entry/Open Exit) PREREQUISITE: None
Techniques and practice for improving ten-key speed and accuracy in order to meet degree and certificate requirements. (A)

## 131 APPLIED ACCOUNTING

3 units, 3 lecture hours, 2 lab hours, (Formerly Business General Office 51 and Business \& Technology 31)

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Practical accounting for service and merchandising businesses involving classification of accounts, relationship of assets, liabilities, and owner's
equity; posting, accounts receivable, accounts payable, financial reports, the accounting cycle, and payroll. (A)

## 140 LEGAL OFFICE ADMINISTRATION

3 units, 2 lecture hours, 1 lab hour, (See also
Paralegal 156), (Formerly BSS 57A and Business
General Office 56 and Business \& 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)

## 144 MEDICAL ADMINISTRATIVE ASSISTANT

3 units, 2 lecture hours, 2 lab hours, (Fall only), (Formerly BSS 58 and Business General Office 58 and Business \& Technology 44)
ADVISORY: Ability to touch type 25 words per minute. 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. (A)

## 145 MEDICAL TRANSCRIPTION I

2 units, 1 lecture hour, 2 lab hours, (Formerly BSS
60 A and Business Information Processing 60 and Business \& Technology 45)
PREREQUISITE: Business \& Technology 43 or HIT 10. ADVISORY: Business \& Technology 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 \& Technology 46)
ADVISORY: BT 145, 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 \& Technology 47)
ADVISORY: BT 48 or equivalent work experience and keyboard by touch at a minimum of 25 words per minute recommended.

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 \& Technology 48)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended. Ability to type 25 words per minute recommended. Business \& Technology 147, or equivalent work experience, may be taken concurrently.

Health insurance plans; insurance claims forms used in a medical office, complete with coding. (A)

## 250 OFFICE SKILLS LAB

1 unit, 3 lab hours, (Repeats = 3), (Formerly Business
General Office 3 and Business \& Technology 50)
PREREQUISITE: None.
Supervised use of computers and ten-key calculators. 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 \& 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 \& 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 \& 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 \& 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 \& 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.

## 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 \&
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.

## CLERICAL TRAINING (стстс)

## 370 OFFICE ASSISTANT APPLICATIONS

10 lecture hours, 20 lab hours, ( 20 weeks), ( 600 total hours), (Repeats $=3$ ), (Formerly CTVTC 70)
Records management, basic English, grammar, 10-key/math, current version of Microsoft Office (to include Word, Excel, and Windows), telephone etiquette, human relations, and resume/interview. Designed for those who seek employment in an office.

## 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, ( 20 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

$1-4$ units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Seventyfive hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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. Cabinetmaking joints, 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 cabinetmak-
ing: veneering and inlaying, bending and laminating, plastic laminates, machine-made cane webbing, special finishing techniques, furniture restoration, 32-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, machine-made webbing, special finishing techniques, furniture restoration, $32-\mathrm{mm}$ 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 103 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. (CAN CHEM 2), (A, CSU-GE, 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 thermodynamics and kinetics; oxidation-reduction and coordination, and nuclear chemistry; inorganic qualitative and quantitative analysis. (A, CSU, UC, I)

## 3A INTRODUCTORY GENERAL CHEMISTRY

4 units, 3 lecture hours, 3 lab hours, (Replaces
Chemistry 2A-2B)
PREREQUISITE: Math 101 or equivalent. ADVISORY: Math 103 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; acid-based theory, redox, and equilibria; qualitative and quantitative theory and techniques. For non-science majors. (CHEM 3A $+3 \mathrm{~B}=\mathrm{CAN}$ 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 $+3 \mathrm{~B}=\mathrm{CAN}$ CHEM SEQ B) (A, CSU-GE)

## 8A ELEMENTARY ORGANIC CHEMISTRY

3 units, 3 lecture hours
PREREQUISITE: Chemistry 1A or 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)

ADVISORY: 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 preColumbian 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 (now the 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 ensemble 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, CSU-GE, 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
ADVISORY: 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 CULTURES

3 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.

A survey 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, I)

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
ADVISORY: 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 infants and young children in early care and education programs. Prevention, detection, and management of communicable disease; medical issues associated with disabilities and chronic illness; infant and child CPR and first aid; safety and accident prevention. (A, CSU)

## 7 INFANT DEVELOPMENT-BIRTH TO AGE THREE

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 early intervention, and group size in the context of quality care. Relating to families and recognizing cultural differences/ similarities. (A, CSU)

## 7A ADVANCED INFANT DEVELOPMENT AND EARLY INTERVENTION-BIRTH TO AGE THREE

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 development, caregiving and early intervention 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. Focus on early intervention assessment, treatments, and strategies. (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 8 A with a focus on overall program design for school-age child care. (A, CSU)

## 8A SCH00L AGE CHILD: GROWTH AND DEVELOPMENT

 3 units, 3 lecture hoursADVISORY: 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-of-school 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)

[^1]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)

## 18A CHILD DEVELOPMENT INTERNSHIP

2-4 units, 1 lecture hour, 4-12 lab hours, (Formerly Child Development 18)
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 or 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. (A, CSU)

## 18B CHILD DEVELOPMENT INTERNSHIP

2-4 units, 1 lecture hour, 4-12 lab hours, (Repeats = 2)

PREREQUISITE: Verification of freedom from tuberculosis and proof of immunization against measles, mumps and rubella, twice, if born after 1957. Child Development 18A or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Supervised field experience or 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 Child Development Permit. (A, CSU)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 reciprocal socialization of the child and family within the context of the family, classroom, and the community. Issues addressed include the effects of divorce, single parenthood, rapid cultural changes, child care, the media, working with culturally diverse families, parent-school relations, children with disability, child abuse prevention, and the effects of stress and trauma in infants' and young children's lives. (A, CSU)

## 31 THE CHILD IN SOCIETY: A SOCIAL PROBLEMS APPROACH

3 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 Development Center 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 typical and atypical physical, cognitive and psychosocial development at each major stage of life from conception to death. All major topics of human development (e.g. human behavior, sexuality, nutrition, health, stress, key relationships of humankind to the social and physical environment, and implications 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)
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. (CAN FCS 14) (A, CSU-GE, UC, I)

## 40A ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS <br> 3 units, 3 lecture hours, (Formerly Child Development 36A) <br> ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL

 67 and 68 recommended. Twelve units of Child Development (Child Development $3,30,37 \mathrm{~A}$ 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)
PREREQUISITE: Child Development 40A. 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)

ADVISORY: 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-doreview strategies, key experiences, curriculum planning, child assessment and team planning. (A, CSU)

## 45 ADULT SUPERVISION IN EARLY CHILDHOOD EDUCATION CLASSROOMS

2 units, 2 lecture hours
ADVISORY: Completion of 12 units of Child Development (recommended 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)

## 47 EMERGENT LITERACY

3 units, 3 lecture hours, (Formerly Child Development 47A)
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)

## 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

 COMMUNITY1-3 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)

## 194 Computer Aided Drafting and Design

COMPUTER AIDED DRAFTING AND DESIGN (CADD) see also drafting

## 14 INTRODUCTION TO COMPUTER AIDED DRAFTING 3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Drafting 42 and 32) <br> Introduction to the use of the computer as a drafting tool for the architectural, engineering, and mechanical industries. (A, CSU)

## 22 MECHANICAL DRAWING I

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ) PREREQUISITE: CADD 14 and Drafting 12.
Use of the computer to create advanced mechanical drawings covering orthographic projections, sections, auxiliaries, and pictorials. Precision measurement, tolerances, and design will also be explored. (A, CSU)

## 24 ADVANCED COMPUTER AIDED DRAFTING

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3) PREREQUISITE: CADD 14.
Advanced CAD topics for the computer aided draftsperson in the disciplines of architecture, engineering, mechanical, and other related fields. (A, CSU)

26 INTRODUCTION TO 3D SOLID MODELING
3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Drafting 20 and CADD 34)
PREREQUISITE: Drafting 12 or equivalent and CADD 14 or equivalent.
Computer generated 3D solid models, assemblies, and detailed drawings for the mechanical industry. Rapid prototyping models. (A, CSU)

32 MECHANICAL DRAWING II
3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ),
(Formerly Drafting 22 and CADD 24)
PREREQUISITE: CADD 22.
Use of the computer to create mechanical drawings covering fasteners, threads, springs, gears, cams, welding and design. (A, CSU)

36 ADVANCED 3D SOLID MODELING
3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ) PREREQUISITE: CADD 26.
Advanced solid modeling techniques for the mechanical industry. Physical models through rapid prototyping processes. (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)

42 MECHANICAL DRAWING III
3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
PREREQUISITE: CADD 32 and CADD 36 .
Project design using various CAD systems. Portfolio creation including presentation models. (A, CSU)

## COMPUTER AIDED MANUFACTURING (сАм)

## 10 CNC MILL PROGRAMMING \& OPERATION I

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, CAM integration and networking, and CNC routing 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: CAM 20. 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 PC-based 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: 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.

An introduction to the operation and programming of a CNC lathe. 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: CAM 20. 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, subroutines, 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 103 or equivalent. COREQUISITE: Math 4 A 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)

## 26 DISCRETE MATHEMATICS FOR COMPUTER SCIENCE

3 units, 3 lecture hours.
PREREQUISITE: Computer Science 40 or 40J, and Math 5A.
Elements of discrete mathematics which have applications to computer science. Topics include sets, propositional and predicate logic, relations and functions, mathematical induction, graphs, and trees. (A, CSU)

## 30 PROGRAMMING IN THE PASCAL LANGUAGE

3 units, 2 lecture hours, 2 lab hours.
PREREQUISITE: Math 103 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 PASCAL; syntax; control and data structures; design development, style, documentation, testing, and maintenance of software; arrays, functions, procedures, records, and files. (A, CSU)

40 PROGRAMMING CONCEPTS \& METHODOLOGY I
4 units, 3 lecture hours, 2 lab hours, (Formerly Math 30A and Computer Science 30A)
PREREQUISITE: Math 103 or equivalent. COREQUISITE: Math 4 A 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-GE, UC)

## 40J PROGRAMMING CONCEPTS AND METHODOLOGY IN JAVA

4 units, 3 lecture hours, 2 lab hours
PREREQUISITE: Math 103 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, procedural and data abstraction using the high level computer programming language JAVA; program design, coding, debugging, testing, and documentation. (A, CSU-GE)

## 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-GE, 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-4 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 50A and 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 50A and 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 50A and 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 50A and 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 50A and 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 50A and 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 50A and 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 (вмстс)

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 SYSTEM

3 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; legal 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. (CAN AJ 4) (A, CSU)

## 7 CONCEPTS OF ENFORCEMENT SERVICES

3 units, 3 lecture hours, (Formerly AJ 7)
ADVISORY: 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)

## 9 CRIME SCENE FORENSIC EVIDENCE

3 units, 3 lecture hours
PREREQUISITE: CRIM 8 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Proper methods utilized in locating, identifying, handling, and analyzing physical evidence found at the scene of a crime. (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 CRIMINAL JUSTICE COMMUNICATIONS

3 units, 3 lecture hours. (Formerly AJ 12)
COREQUISITE: Criminology 12A. 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)

## 12A CRIMINAL JUSTICE REPORT WRITING

1 unit, 1 lecture hour, (Repeats = 2)
COREQUISITE: Criminology 12. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

The utilization of proper English principles in the proper and effective writing of reports in the criminal justice system. (A, CSU)

## 13 THE CONSTITUTION AND YOUR INDIVIDUAL RIGHTS

3 units, 3 lecture hours, (Formerly AJ 13)
COREQUISITE: Criminology 12A. 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)
ADVISORY: 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

## $1-4$ units, $($ Repeats $=3)$

COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 correctional 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, UC)

## 40 CROSS-CULTURAL APPRECIATION

1 unit, 1 lecture hour
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)

## 9 DANCE CONDITIONING

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: None.
Conditioning techniques which promote body awareness, improve body alignment, enhance and expedite dance skills, and aid in preventing injuries common to various dance styles. (A, CSU)

## 10 MODERN DANCE

1 unit, 3 lab hours, (Repeats = 3), (Formerly PE 4)
PREREQUISITE: 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, 3 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. COREQUISITE: Dance 9.

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)
ADVISORY: 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)
PREREQUISITE: Dance 16 or demonstration of comparable skill level to be determined by testing or video portfolio of past dance performance 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 PERFORMANCE

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 PERFORMANCE

2-4 units: 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)

## 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 social dances; such as, rhumba, fox trot, swing, waltz, cha cha, tango, mixers, and selected line dances. (A, CSU, UC)

## 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)

## 202 Decision Science

## 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. Dance 30 does not meet the Physical Education requirement. (A, CSU-GE, UC, I)

## 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 103 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, I)

## 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 250 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 1A 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, $7 \mathrm{~B}, 8 \mathrm{~B}$, 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 DENTAL SPECIALTIES

1 unit, 2 lecture hours, ( 9 weeks), (Fall, second year)
PREREQUISITE: Dental Hygiene 3A and 5A, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 1C, 5B, 6B, and 7A.

The history of dental specialties including pedodontics, orthodontics, periodontics, oral surgery, endodontics, prosthodontics, and the role of the registered dental hygienist in each dental specialty. Specialties practice research and presentation. (A, CSU)

## 4 ORAL RADIOGRAPHY

4 units, 2 lecture hours, 6 lab hours, (Fall, first year)
PREREQUISITE: Acceptance into the Dental Hygiene Program. COREQUISITE: Dental Hygiene 1A, 3A, and 10.

History and physics of radiation; radiation protection; use of standard, panoramic, and computerized digital radiographic equipment; use of the intraoral camera; duplication of radiographic images; exposure, processing, mounting, and identification of standard, panoramic, and computerized radiographs and intraoral images; critiquing of oral radiographic images of normal and abnormal anatomy and artifacts; interpretation of radiographic and pictorial pathology of the hard and soft structures of the oral cavity. (A, CSU)

## 5A CLINICAL DENTAL HYGIENE I

3 units, 8 lab hours, (Spring, first year), (Credit/No Credit)
PREREQUISITE: Dental Hygiene 3 A 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, 2 lecture hours, ( 9 weeks), (Spring, first year)
PREREQUISITE: Dental Hygiene 3 A 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

3 units, 3 lecture hours, (Fall, second year)
PREREQUISITE: Dental Hygiene 6A 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, pharmacokinetics, and physiology of local anesthetic agents and nitrous oxide gas. (A, CSU)

## 204 Dental Hygiene

## 7A COMMUNITY DENTAL HEALTH I

2 units, 2 lecture hours, (Fall, second year)
PREREQUISITE: Dental Hygiene 3A and 5A and Psychology 2, each with a grade of " C " or better. COREQUISITE: Dental Hygiene 1C, $3 \mathrm{~B}, 5 \mathrm{~B}$ 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 8B.

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

2.5 units, 4 lecture hours, 3 lab hours, ( 9 weeks), (Spring, first year)
PREREQUISITE: Dental Hygiene 1A and 3A, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 1B, 2, 5A, 6A, and 8 A .

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)

## 12 CLINICAL SEMINAR TOPICS I

1 unit, 2 lecture hours, ( 9 weeks)
PREREQUISITE: Dental Hygiene 3 A with a grade of "C" or better. COREQUISITE: Dental Hygiene 5A.

Seminar format with discussion of various topics dealing with beginning clinical practice of dental hygiene. Beginning level of decision making, dental hygiene diagnosis, treatment planning, implementation of dental hygiene therapy and problem solving of clinical issues encountered in DH 5 A , Clinical Dental Hygiene I. Instrument sharpening, sequencing, ultrasonics, periodontal charting, and ergonomics. (A, CSU)

## 13 CLINICAL SEMINAR TOPICS II

1 unit, 2 lecture hours, ( 9 weeks)
PREREQUISITE: Dental Hygiene 12. COREQUISITE: Dental Hygiene $5 B$.

Seminar format with discussion of various topics dealing with intermediate clinical practice of dental hygiene. Intermediate level of decision making, clinical judgment, dental hygiene diagnosis, and problem solving of clinical issues encountered in DH 5B, Clinical Dental Hygiene II. Use of diagnostic technology for caries detection, computerized delivery systems for local anesthetics, digital radiography, and subgingival irrigation therapy. (A, CSU)

## 14 CLINICAL SEMINAR TOPICS III

1 unit, 2 lecture hours, ( 9 weeks)
PREREQUISITE: Dental Hygiene 13. COREQUISITE: Dental Hygiene 5C.

Seminar format with discussion of various topics dealing with advanced clinical practice of dental hygiene. Advanced level of decision making, clinical judgment, dental hygiene diagnosis, and problem solving of clinical issues encountered in DH 5C, Clinical Dental Hygiene III. Preparation for the Dental Hygiene National Board Examination, Mock Board Clinical examination, and state licensure examinations. (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)

## 260 WORKABILITY

3 units, 3 lecture hours, (Credit/No Credit), (Repeats = 3), (Formerly Developmental Services 60) PREREQUISITE: None.
Offers students with disabilities the opportunity 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 INTERACTION FOR STUDENTS WITH

 DISABILITIES2 units, 2 lecture hours, (Credit/No Credit),
(Repeats = 1), (Formerly Developmental Services 62) PREREQUISITE: None.
Development and improvement of self-understanding through group interactions. Designed for students with physical, communicative, developmental, and/or learning limitations.

## 264 TRANSITION TO COLLEGE FOR STUDENTS WITH DISABILITIES

1 unit, 1 lecture hour, (Credit/No Credit), (Repeats = 1)
PREREQUISITE: Student must have a diagnosed verifiable disability.
Assist students with disabilities in preparing for initial semester in a community college. Navigation of State Center Community College District campuses, resources, academic policies, procedures and services. Course content will cover issues related to accommodations and resources available to students with disabilities to enable them to be successful in a college setting, including disability evaluation and assessment, alternative media, course selection, and scheduling.

265 INDIVIDUALIZED INSTRUCTIONAL PROBLEMS
1 unit, 3 lab hours, (Credit/No Credit), (Repeats = 3), (Formerly Developmental Services 65)
PREREQUISITE: None.
An emphasis on the further development of skills learned in reading, writing, spelling, math, or study skills. Individualized instruction emphasizing each student's academic needs and based on individual student's learning style. 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)

PREREQUISITE: None.
Emphasis on home and money management, health, hygiene and safety, and food and nutrition. Designed for the severely disabled and/or developmentally delayed learner.

## 273 INDEPENDENT LIVING SKILLS FOR DSP\&S STUDENTS 2 units, 6 lab hours, (Credit/No Credit), (Repeats = <br> 3), (Formerly Developmental Services 73) <br> PREREQUISITE: None.

Basic independent living skills. Including appropriate social interaction, self-advocacy, self-care, community involvement, personal choice and managing life events. Designed for students with severe disabilities and/or the developmentally delayed learner.

## 275 HORTICULTURE SKILLS I

2 units, 6 lab hours, (Credit/No Credit),
(Repeats = 2), (Formerly Developmental Services 75) PREREQUISITE: None.
Basic techniques of foliage plant care and growing vegetables and ornamentals, with emphasis on transferable employment skills. Designed for students with mental health, physical, learning and/or developmental disabilities.

## 276 HORTICULTURE SKILLS II

2 units, 6 lab hours, (Credit/No Credit), (Repeats = 2), (Formerly Developmental Services 76)

PREREQUISITE: None.
Intermediate techniques of foliage plant care and growing vegetables and ornamentals, with emphasis on transferable employment skills. Designed for students with mental health, physical, learning and/or developmental disabilities.

## 277 ADAPTED COMPUTER LITERACY

2 units, 1 lecture hour, 3 lab hours (Credit/No Credit), (Repeats = 3), (Formerly Developmental Services 77) PREREQUISITE: None.
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.

## 206 Drafting

## 278 MODIFIED WORD PROCESSING

2 units, 1 lecture hour, 3 lab hours, (Credit/No
Credit), (Repeats = 3), (Formerly Developmental
Services 78)
PREREQUISITE: None.
Basic word processing terminology and understanding of Microsoft Word. Designed for the student 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)
PREREQUISITE: None.
Expansion and enhancement of word processing, data management, spreadsheet, and other highly marketable microcomputer applications. Designed for students with physical, communicative, and/or learning limitations.

280 STUDENTS UNDERSTANDING COLLEGE, CAREERS, EMPLOYMENT, SUPPORT, AND SUCCESS (SUCCESS) SELF-EXPLORATION
3 units, 2 lecture hours, 3 lab hours, (Credit/No
Credit), (Repeats = 3), (Formerly Developmental Services 80)
PREREQUISITE: None
Specifically designed for the student with a severe disability. Emphasis on developing skills in the areas of career awareness, exploration and preparation, socialization, utilizing community resources, and appropriate grooming and hygiene. Designed to prepare students for employment.

281 STUDENTS UNDERSTANDING COLLEGE, CAREERS, EMPLOYMENT, SUPPORT, AND SUCCESS (SUCCESS) EDUCATIONAL AND CAREER OPTION

1-4 units, 75-300 total lab hours, (Credit/No Credit),
(Repeats = 3), (Formerly Developmental Services 81) PREREQUISITE: None.
Specifically designed for the student with a severe disability. Emphasis on developing skills in the areas of time management, following directions and instructions, appropriate work behaviors, selecting and planning vocational choices. Designed to prepare students for employment.

## 282 GREENHOUSE WORKFORCE PREP

4 units, 12 lab hours, (Credit/No Credit), (Repeats = 3), (Formerly Developmental Services 82) PREREQUISITE: None.
An introduction to vocational training in an actual working greenhouse. This will assist in preparing students for success in future employment. Topics include ornamental and vegetable plant growing and care, occupational behavior and interpersonal skill development.

## 291 STRATEGIES FOR ACADEMIC SUCCESS

2 units, 2 lecture hours, (Credit/No Credit)
PREREQUISITE: None.
Identification of educational, personal, career goals, study principles, methods and strategies to achieve them. Designed for students with learning disabilities and/or developmentally delayed.

## 292 COLLEGE AWARENESS SURVIVAL SKILLS

2 units, 2 lecture hours, (Credit/No Credit) PREREQUISITE: None.
Development of college survival skills. Emphasis on time management, note-taking, library skills, and career exploration. Designed for students with learning disabilities and/or developmentally delayed.

## 359 DIFFERENTIAL LEARNING DIAGNOSIS

0 units, 5 lab hours, (Credit/No Credit), (Repeats =
3), (Open Entry/Open Exit), (Formerly Developmental Services 59)
PREREQUISITE: None.
Learning skill assessment to identify learning strengths and deficits provides information to the DSP\&S in the validation \& verification of a disability and accommodations needed. Learning disability assessment to determine eligibility for services in California Community Colleges. Designed for the student 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, (Repeats = 3)
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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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)

2 THE US \& EU BUSINESS CULTURES<br>3 units, 2 lecture hours<br>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.<br>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. Aternative approaches and solutions to inflation and unemployment; fiscal and monetary policy in economic planning and management. (CAN ECON 2) (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-GE, UC, I)

## 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. (CAN ECON 4) (A, CSU-GE, UC, I)

## 1BH HONORS INTRODUCTION TO MICROECONOMICS

## 3 units, 3 lecture hours

ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 , Math 101 recommended. Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

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. In addition, Honors sections will discuss and analyze the works of historical economic figures. (A, CSU)

## 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.

A review of reading comprehension and essay writing, designed to assist students and teachers prepare for the CBEST. (A special 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
PREREQUISITE: None.
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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

$1-4$ units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## EDUCATIONAL AIDE/PARAEDUCATOR <br> (EDAP)

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-4 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## ELECTRICITY

## SEE ELECTRICAL SYSTEMS TECHNOLOGY

## ELECTRICAL SYSTEMS TECHNOLOGY (EST)

## FORMERLY ELECTRONIC TECHNOLOGY

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

 1-4 units, (Repeats = 3), (Formerly Electronic Technology 19)COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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 technology. Learning objectives established specific to electronic technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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, component identifications, 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, 5 lecture hours, 4 lab hours
PREREQUISITE: 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)
PREREQUISITE: 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)
PREREQUISITE: None.
Upgrading and maintaining personal computers for use on a local area network, including RAM, CD-R0Ms, hard drives, floppy drives and modems. (A, CSU)

## 61 NETWORKING ESSENTIALS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Electronic Technology 59)
ADVISORY: Electrical Systems Technology 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)

## 210 Electrical Systems Technology

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 CCNA Certification. (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 CCNA Certification. (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 single-family 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 TRAINING

2 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 TRAINING

1 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 CCNA Certification.

## 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 CCNA Certification.

## 269A FUNDAMENTALS OF NETWORK SECURITY-FIREWALLS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1)
PREREQUISITE: EST 64 or equivalent.
Security policy design and management; security technologies, products, and solutions; firewall and secure router design, installation, configuration, and maintenance.

## 269B FUNDAMENTALS OF WIRELESS LANS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1) PREREQUISITE: EST 62.
The design, planning, implementation, operation, and troubleshooting of Wireless LANs.

## 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.

## ELECTRONIC TECHNOLOGY (ETCTC)

## 370 COMPUTER TECHNICIAN

0 units, 6.65 lecture hours, 13.35 lab hours, (30
weeks), (Repeats $=3$ )
PREREQUISITE: None.
Practical and theoretical training in basic microcomputer operations and repair. Includes exposure to applications that are part of the windows operating system.

## 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. (CAN ENGR 10) (A, CSU, UC)

## 1B ELEMENTARY PLANE SURVEYING 2

3 units, 3 lecture hours, 3 lab hours
PREREQUISITE: 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 hous, (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, UC)

## 8 STATICS

3 units, 3 lecture hours, (Formerly Engineering 25) PREREQUISITE: Physics 4A.
Rigid bodies in static equilibrium when acted upon by forces and couples in two- and three-dimensional space. Included are the equilibrium of rigid bodies, trusses, frames, and machines, as well as the calculations of the centers of mass, centroids, friction, and moments of inertia. Additional topics which may be covered include distributed forces in cables, beams, and fluid statics; mass moments of inertia; and virtual work. (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)

## 212 English

## 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

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SEE DRAFTING
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## 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. (CAN ENGL 2) (A, CSU-GE, UC, I).

## 1B INTRODUCTION TO THE STUDY OF LITERATURE

3 units, 3 lecture hours
PREREQUISITE: English 1A or 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-GE, UC, I)

## 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.

A survey of the Bible as literature. 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 literature, 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 1 B 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 1A or equivalent. Neither English 1B nor English 44 A is a prerequisite for this class.

A survey 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 1 B 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 1 A or equivalent. English 1 B 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 1A or equivalent. Neither English 1B nor English 46A is a prerequisite for this class.

A survey of British and Irish fiction, poetry, and drama of the Romantic, Victorian, and Contemporary periods. (CAN ENGL 10) (A, CSU-GE, UC, I)

## 48A INTRODUCTION TO AMERICAN LITERATURE TO WORLD WAR I

3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent. English 1 B is not a prerequisite for this class.

A survey of short stories, novels, poetry, essays, and plays produced by the greatest American writers of the period. (CAN ENGL 14) (A, CSU-GE, UC, I)

## 48B INTRODUCTION TO AMERICAN LITERATURE FROM WORLD WAR I TO THE PRESENT <br> 3 units, 3 lecture hours <br> PREREQUISITE: English 1A or equivalent. Neither English 1B nor English 48 A is a prerequisite for this class. <br> A survey of short stories, novels, poetry, essays, and plays produced by the greatest American writers of the period. (CAN ENGL 16) (A, CSU-GE, UC, I)

## 214 English

## 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 112), (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 students learning 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 important 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 126. 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 265 W 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)

## 216 Environmental Technology

## 170 PREPARATORY ENGLISH SKILLS FOR THE POLICE

 ACADEMY3 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 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 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 264R.

## 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 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 263 R 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 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)
PREREQUISITE: Use of language other than English as a primary language. Designated score on ESL placement test or completion of ESL 264 R 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 with a grade of "C" or better.

Advanced-intermediate writing, grammar and study skills. Designed to prepare speakers of other languages for ESL 67.

## 270 PRONUNCIATION IMPROVEMENT AND ACCENT REDUCTION <br> 3 units, 3 lecture hours, (Credit/No Credit), (Repeats $=1$ )

ADVISORY: Eligibility for ESL 265W, ESL 265R recommended.
For ESL students at the intermediate to advanced levels to improve oral communication (listening/speaking) skills including phonetic accuracy and fluency. Improving oral communication skills results in greater speaker confidence and intelligibility.

## ENVIRONMENTAL TECHNOLOGY (ENvt) <br> FORMERLY ENVIRONMENTAL HAZARDOUS <br> 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.

A general 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. Topics include hazard analysis, contingency planning, housekeeping and safety practices including 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, SARA Title III Right-to-Know, Underground Tank, Asbestos, Proposition 65, and Air Toxic Regulations. Provides student with an understanding of the legal framework of hazardous materials laws 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

Success on the job, 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. Seventyfive hours of paid employment or 60 hours of volunteer employment per unit
per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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. 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)

## 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 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)

## 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 H EC 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, I)

## 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, I)

## 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 2 A nor $2 B$ is a prerequisite for this course. (A, CSU)

## 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 fire operations, 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; information 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 pre-hospital 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)

## 132 EMERGENCY MEDICAL TECHNICIAN-PARAMEDIC

30 units, 10.6 lecture hours, 16.17 lab hours, ( 60 weeks)
PREREQUISITE: Valid Emergency Medical Technician 1A or Emergency Medical Technician 1NA Certificate and a current cardiac life support card according to the standards of the American Heart Association or American Red Cross. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended.

Pre-hospital advanced life support to the acutely ill and injured in accordance with the provisions of Title 22 of the California Code of Regulations. (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 Service Training 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)
ADVISORY: 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 interviews, 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 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.

## 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 health. 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)

ADVISORY: 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-4 units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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.

## 224 Foreign Language - American Sign Language

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

 PROFESSIONALS2 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 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)

## 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 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. 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)PREREQUISITE: 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)
PREREQUISITE: 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, UC, I)

## 4 HIGH-INTERMEDIATE AMERICAN SIGN LANGUAGE <br> 4 units, 4 lecture hours, (Formerly ASL 2B)

PREREQUISITE: 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, UC, I)

## 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, I)

## 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, I)

## 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. (CAN CHIN 4) (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 FREN 2) (A, CSU-GE, UC, I)

## 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)

## 226 Foreign Language - German

## 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, I)

## 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)
PREREQUISITE: 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. (CAN JAPN 2) (A, CSU-GE, UC, I)

## 2 HIGH-BEGINNING JAPANESE

4 units, 3 lecture hours, 2 lab hours, (Formerly
Japanese 1B)
PREREQUISITE: 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. (CAN JAPN 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, I)

## 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. (CAN RUSS 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, I)

## 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, 3 lecture hours, 2 lab 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, I)

## 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, I)

## 228 Foreign Language - Swahili

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.

A selection of Hispanic short stories, culture and civilization. Continued development of Spanish language skills in 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.

A selection of Hispanic short stories, culture and civilization. Continued development of Spanish language skills in 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, I)

## 8 ADVANCED SPANISH CONVERSATION

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: 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)

[^2]Culture of modern Costa Rica and its roots in pre-Columbian civilization. Designed for students enrolled in the Sum

## SWAHILI (SWAHLI)

1 BEGINNING SWAHILI
4 units, 3 lecture hours, 2 lab hours, (See also
African-American Studies 21), (Formerly Swahili 1A)
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)

## 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 (GEOG)

## 1 PHYSICAL GEOGRAPHY

3 units, 3 lecture hours
ADVISORY: 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 opportunities with demonstrations, discussion, and basic projects. (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)

## 230 Graphic Communications

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 portable 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 software 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 $=3$ )
PREREQUISITE: 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)
ADVISORY: 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

 1-4 units, (Repeats = 3), (Formerly PrintingTechnology 19)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 $=3$ )
PREREQUISITE: 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 $=3$ )
ADVISORY: 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) PREREQUISITE: 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 English 125 and 126 or English 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 English 125 and 126 or English 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 English 125 and 126 or English 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)

## 27 DIGITAL VIDEO PRODUCTION

4 units, 3 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.

Introduction to digital video production with emphasis on editing techniques using Final Cut Pro. Units include planning, vocabulary, storytelling, camera technique, logging, and working with editing software. Students will complete many short exercises and produce a final video project. (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)
PREREQUISITE: 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)
PREREQUISITE: 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. ADVISORY: 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
PREREQUISITE: None.
Development of academic language skills for underprepared college students. (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. It is a comprehensive survey course that integrates personal/academic growth and development with an emphasis in overall life-long success. It includes 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. (A, CSU)

## 43 GROUP DYNAMICS AND SELF UNDERSTANDING

2 units, 2 lecture hours, (Repeats $=1$ )
PREREQUISITE: None.
An in-depth look at concepts key to self-understanding and successful relationships with a focus on building self-confidence, self-esteem, assertiveness, and interpersonal skills while also identifying barriers to communication and
healthy dynamics. Presented in a lecture as well as an interactive format. Emphasis may include interpersonal abuse, peer mentoring, substance abuse and/or social anxiety. (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)
PREREQUISITE: None.
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)
PREREQUISITE: None.
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 AND DEVELOPMENT

1 unit, 2 lecture hours, ( 6 additional hours arranged), (6 weeks)
PREREQUISITE: None.
Career and educational planning for college students. Topics include self-assessment, career exploration, occupational outlook and decisionmaking. An introduction to computerized recourses and career information systems is provided. (A, CSU)

## 49 JOB PREPARATION

1 unit, 2 lecture hours, ( 6 additional hours arranged), (6 weeks)
PREREQUISITE: None.
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)

## 53 COLLEGE AND LIFE MANAGEMENT

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Freshman orientation providing information, skills, and processes to survive in college and to better understand themselves as students, responsible adults, and members of the working-world. Designed to enable students to formulate life, career, education, and personal goals, and various strategies to accomplish those goals. Can be offered as an introduction of cross-discipline thematic through the Learning Community dynamic or as a stand-alone course. (A, CSU)

## 54 FOUNDATIONS TO SUCCESS IN COLLEGE, CAREER AND LIFE

1 unit, 1 lecture hour
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Designed to focus on continuing the learning community experience and assisting students in the transitioning process from self-focused to other life roles. Team building and role responsibilities to self and community will be explored and developed. Designed to help students in their transition from Guidance Studies 53 freshman orientation to implement their academic, career, and personal goals. (A, CSU)

150 COLLEGE INTRODUCTION
1 unit, 2 lecture hours, ( 9 weeks), (Formerly Guidance Studies 50)
PREREQUISITE: None.
Self-assessment, success planning, time management, campus resources, catalog/educational planning, and career awareness. (A)

## 270 ORIENTATION FOR ACADEMIC SUCCESS

1 unit, 2 lecture hours, ( 9 weeks), (Credit/No Credit), (Formerly Guidance Studies 70)
PREREQUISITE: None.
Emphasis on self-responsibility, assertiveness, self-confidence, learning style(s), stress reduction and the importance they play in academic success.

## HAZARDOUS MATERIALS

SEE ENVIRONMENTAL TECHNOLOGY

## HEALTH INFORMATION TECHNOLOGY (Hit)

 FORMERLY MEDICAL RECORD TECHNOLOGY
## 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.

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 health 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)
PREREQUISITE: Information Systems 15 and Health Information Technology 1. 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)

## 234 Health Information Technology

## 4 DISEASE PROCESS

3 units, 3 lecture hours
PREREQUISITE: Biology 151.
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-9-CM codes using manual and computer methods. (A, CSU)

## 6 CODING AND REIMBURSEMENT

3 units, 3 lecture hours
PREREQUISITE: 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 $=3$ )
PREREQUISITE: Health Information Technology 3 and 5. ADVISORY: 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
PREREQUISITE: 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

$1-4$ units, $($ Repeats $=3)$
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## HEALTH SCIENCE (нLтн)

## 1 CONTEMPORARY HEALTH ISSUES

3 units, 3 lecture hours, (Formerly Health Education 1)

ADVISORY: 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)
PREREQUIIITE: 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)
PREREQUIITTE: 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.

A survey 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 HIST 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.

A survey 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. (CAN HIST 4) (A, CSU-GE, 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)

## 236 History

## 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 HIST 8) (A, CSU, UC, I)mer in Costa Rica Program. (A, CSU)

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 HIST 10) (A, CSU, UC, I)

## 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 125 and 126 or English 153 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 125 and 126 or English 153 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)

## 20 COMPARATIVE WORLD CIVILIZATIONS TO 1600

3 units, 3 lecture hours.
COREQUISITE: Education 30. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Economic, political, and social developments in World Civilization from the emergence of human communities to around 1600 . (This course is designed for transfer Liberal Studies Blended Major students.) (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, I)

## 30 CALIFORNIA HISTORY

3 units, 3 lecture hours
ADVISORY: 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 19541969

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)

[^3]
## HOME ECONOMICS (HEC)

## 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL $1-4$ units, $($ Repeats $=3)$

COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major: Offered under specific majors.

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. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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 2 H , 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,

## 238 <br> Honors

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 crossdisciplinary 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, CSU-GE, 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 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 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)

## 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)

## ECONOMICS 1BH, HONORS INTRODUCTION TO MICROECONOMICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, Math 101 recommended. Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

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. 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)
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. (CAN ENGL 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.

A survey 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 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. (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.

A seminar 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)

## HONORS 1A, HONORS SCIENCE COLLOQUIUM: BIOLOGICAL SCIENCE THROUGH SCHOLARLY RESEARCH

## 1 unit, 1 lecture hour

ADVISORY: Meet the qualification for acceptance into the Honors Program recommended. Recommended completion or concurrent enrollment of at least one of the following courses: Biology 1H or English 1AH. See Honors Program listing in college catalog.

Interdisciplinary approach to biological research integrating scientific writing and scholarly presentation methods. Critical topics and concepts beyond content offered in Biology 1 Honors. (A, CSU)

## HONORS 1B, HONORS HUMANITIES COLLOQUIUM: THE ANCIENT WORLD TO THE RENAISSANCE

1 unit, 1 lecture hour
ADVISORY: Meet the qualifications for acceptance into the Honors Program recommended. Recommended completion or concurrent enrollment of at least one of the following courses: Philosophy 1AH, History 1H or 2H, Art 5H or 6 H , English 1BH or 3 H . See Honors Program listing in college catalog.

Interdisciplinary investigation of aspects of perceived reality by individuals during historical eras from Prehistoric Age to the Renaissance. Examination of various concepts of reality as manifested in literature, critical thought, philosophy, religion, ideology, arts, politics, and socioeconomic systems. (A, CSU)

## HONORS 1C, HONORS HUMANITIES COLLOQUIUM: THE RENAISSANCE TO POSTMODERNISM

1 unit, 1 lecture hour
ADVISORY: Meet the qualifications for acceptance into the Honors Program recommended. Recommended completion or concurrent enrollment of at least one of the following courses: Philosophy 1AH, History 1H or 2H, Art 5H or 6 H , English 1BH or 3 H . See Honors Program listing in college catalog.

Interdisciplinary investigation of aspects of perceived reality by individuals during historical eras from Renaissance to Postmodern. Examination of various concepts of reality as manifested in literature, critical thought, philosophy, religion, ideology, arts, politics, and socioeconomic systems. (A, CSU)

## HONORS 1D, HONORS BUSINESS AND ECONOMICS <br> COLLOQUIUM: THE LOCAL ECONOMY AND AGRIBUSINESS

1 unit, 1 lecture hour
ADVISORY: Meet the qualifications for acceptance into the Honors Program recommended. Recommended completion or concurrent enrollment of at least one of the following courses: Economics 1AH or 1BH, Business Administration 10H or Management 10H. See Honors Program listing in college catalog.

Interdisciplinary investigation of aspects of economic theory and business systems and their relationship to economic cycles and business practices. Global and national economic and business theories applied to the economic cycles and business conditions of agribusiness of the San Joaquin Valley. (A, CSU)

## HONORS 1E, HONORS SOCIAL SCIENCE COLLOQUIUM: CONTEMPORARY ISSUES IN SOCIAL SCIENCE

1 unit, 1 lecture hour
ADVISORY: Meet the qualifications for acceptance into the Honors Program recommended. Recommended completion or concurrent enrollment of at least one of the following courses: Anthropology 2 H or Psychology 2 H . See Honors Program listing in college catalog.

Interdisciplinary investigation of a contemporary issue in society, culture, and human behavior. Topics studied and researched in relationship to anthropological and psychological theories. (A, CSU)

## HONORS 1F, HONORS PHI THETA KAPPA COLLOQUIUM: PHI THETA KAPPA STUDY TOPICS

1 unit, 1 lecture hour
ADVISORY: Meet the qualifications for acceptance into the Honors Program recommended. See Honors Program listing in college catalog.

Interdisciplinary investigation of the annual study topic of Phi Theta Kappa International Honor Society. Topic determined by the Honors Study Topic Guide and drawn from the humanities, natural sciences and social sciences. (A, CSU)

HONORS 1G, HONORS LEADERSHIP COLLOQUIUM: PHI THETA KAPPA LEADERSHIP TRAINING INSTITUTE 1 unit, 1 lecture hour
ADVISORY: Meet the qualifications for acceptance into the Honors Program recommended. See Honors Program listing in college catalog.

Interdisciplinary study of integrating concepts and materials requiring analysis of leadership styles and contexts from the Honors core courses in humanities, social sciences, and business. Development of student's college and life-long leadership skills. (A, CSU)

## HUMANITIES 7H, HONORS INTRODUCTION TO BRITISH CULTURE <br> 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 10H)
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, CSU-GE, 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 socialpsychological aspects of ethnicity and race, and the examination of other non-dominant groups in the United States. (A, CSU, UC, I)

## 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, astudy 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.

A micro 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, I)

## 18 ALCOHOL AND DRUG ABUSE COUNSELING: PROFESSIONAL AND PERSONAL GROWTH

2 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

 1-4 units, (Repeats = 3)PREREQUISITE: Human Services 20. COREQUISITE: Human Services 24. 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 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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 19B WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, 1 lecture hour, (Repeats = 3)
PREREQUISITE: Human Services 22 and 43. COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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: Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 242 Human Services

## 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 hoursADVISORY: 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
COREQUISITE: HS 20. 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
COREQUISITE: 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 MANAGEMENT

3 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 fol-low-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)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. (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 socialpsychological 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.

A micro 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)

## 244 Individual Study

## 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 \& Technology 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. (CAN BUS 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, 1 lecture hour, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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 Systems. Seventy-five
hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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, MSDOS, etc. (A, CSU)

## 23 WEB PAGE DEVELOPMENT I

1.5 units, 3 lecture hours, 1 lab hour, ( 9 weeks)

PREREQUISITE: 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)
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; 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)
PREREQUISITE: 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)

## 28 DREAMWEAVER-DATA DRIVEN WEBSITES

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: IS 15. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68, and Math 101 recommended. GRC 15, GRC 25 , or IS 23 recommended.

Developing dynamic websites using Macromedia Dreamweaver and Microsoft Access. Selecting an application server; understanding server behaviors; creating HTML forms; validating and retrieving form data; designing a database; retrieving data from a database; using dynamic data in web pages; creating and processing search forms; creating dynamic form objects; inserting, updating, and deleting records; authenticating users. (A, CSU)

## 30A FUNDAMENTALS OF NETWORKING

4 units, 4 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 and IS 17. COREQUISITE: IS 30A and IS 30C.

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 and IS 17. COREQUISITE: IS 30A and IS 30B.

Install, configure, and administer "Active Directory" directory services, which is the directory service for Microsoft Windows 2000. Implementing and

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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
PREREQUISITE: 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.

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. (CAN CSCI 24) (A, CSU)

## 46 ADVANCED MICROSOFT OFFICE

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: IS 25. ADVISORY: IS 40 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. Asolid foundation for working with database theory to create a fully database-enabled 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, UC)

## 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)

PREREQUISITE: IS 15. COREQUISITE: IS 17.
Networking communications as they 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
PREREQUISITE: 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
PREREQUISITE: 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)
PREREQUISITE: 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.

A critical 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. (CAN JoUR 4) (A, CSU, UC)

## 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. (CAN JOUR 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, (SU)

10 INTRODUCTION TO BROADCAST JOURNALISM
3 units, 3 lecture hours
PREREQUISITE: None.
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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-4 units, $($ Repeats $=3)$
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major: Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

 1-4 units, (Repeats $=3$ )PREREQUISITE: Library Technology 51 and 55. COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

Practical work experience in any of four different types of librar-ies-academic, public, school, and/or special. Qualified supervisor will guide on-site work experience. Career planning, job search techniques, interviewing, and building a professional resume. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 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, Library Technology 55, and Information Systems 15 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 information technology. Covers the selection, organization and use of non-print materials, and the use and maintenance of hardware. This includes working with VCRs, computers, projection equipment, transparencies, videos, videodiscs, CD-R0Ms, DVDs, scanners, digital cameras, peripherals, and telecommunications. (A, CSU)

## 57 REFERENCE: PRINT AND ONLINE SOURCES <br> 3 units, 3 lecture hours, 1 lab hour

ADVISORY: Library Technology 51 and 55 recommended.
Introduction to library reference services, research methodologies, standard reference sources, utilizing print, non-print and electronic format types. Reference interview techniques and style. Collection development issues related to library reference services. (A, CSU)

## 60 LIBRARY TECHNOLOGY CAPSTONE

1 unit, 2 lecture hours, ( 9 weeks)
PREREQUISITE: Library Technology 51, 52, 54, 55, 56, and 57 or minimum of 15 units in Library Technology Program.

Students will use prior knowledge, experiences, and linkages with earlier courses in a group- and project-based course. Students will focus their studies on a fictional library setting to address issues or projects pertinent to the library. Practical use of technology will be emphasized along with research, problem-solving, and supervisory skills. (A, CSU)

## LINGUISTICS <br> (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 and 68.

The principles of English grammatical structure, punctuation, morphology, and spelling. (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 and 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. Emphasis on systematic linguistic description of language knowledge and usage. Recommended for liberal studies majors. (A, CSU-GE, UC, I)

## 11 INTRODUCTION TO LANGUAGE FOR EDUCATORS

3 units, 3 lecture hours
PREREQUISITE: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68. ADVISORY: Eligibility for English 1A recommended.

Examination of the nature, history, development and acquisition of language and its structural elements. Emphasis on how language is used and learned. Contrastive analysis of English with other commonly spoken languages of the area. Special focus on the relationship between linguistic structure and the development of reading and writing. (A, CSU)

## MANAGEMENT (MGMT)

## 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, UC)

## 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)
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)

## 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors..

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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)
ADVISORY: 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
PREREQUISITE: Marketing 255
Introduction to call center telemarketing; overview of call center software; usage of telephone system and call center software.

## MATHEMATICS (MATH)

## 4A TRIGONOMETRY

4 units, 4 lecture hours, (Formerly Math 4)
PREREQUISITE: Math 102 and Math 103 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 4 B 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 5A or 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. (CAN MATH 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, Divergence, and Stoke's Theorems. (CAN MATH 22) (A, CSU-GE, UC, I)

## 7 INTRODUCTION TO DIFFERENTIAL EQUATIONS

4 units, 4 lecture hours
PREREQUISITE: 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 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of computational and problem solving skills, number sequences, logic, set theory, functions, ancient numeration systems, real world applications, and technology. Students should plan time outside of class to take basic skills course component. Designed for elementary credential candidates. (A, CSU-GE, UC, I)

## 10B STRUCTURE AND CONCEPTS IN MATHEMATICS II

3 units, 3 lecture hours
PREREQUISITE: Math 10A and Math 102, or equivlent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Development of probability, statistics, geometry, measurement, motion geometry, and tessellations. Designed for elementary credential candidates. (A, CSU-GE, UC, I)

## 11 ELEMENTARY STATISTICS

4 units, 4 lecture hours
PREREQUISITE: 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 hypothesis tests, estimation, correlation, and regression. (CAN STAT 2) (A, CSU-GE, UC, I)

## 21 FINITE MATHEMATICS

3 units, 3 lecture hours, (See also Decision Science 21), (Formerly Math 31)

PREREQUISITE: Math 103 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
PREREQUISITE: Math 5A or 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)
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. (A, CSU-GE, UC, I)

## 45 CONTEMPORARY MATHEMATICS

## 3 units, 3 lecture hours

PREREQUISITE: 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 MATH 2) (A, CSU-GE)

## 48A CALCULUS WORKSHOP I

2 units, 4 lab hours
PREREQUISITE: Math 4A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Methodology 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

PREREQUISITE: Math 4B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Methodology 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

PREREQUISITE: Math 5A or 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 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)

## 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)

PREREQUISITE: 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, 5 lecture 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, 5 lecture hours, ( 6 weeks), (Credit/No Credit), (Formerly Math 60B)
PREREQUISITE: Math 260A. 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, 5 lecture hours, ( 6 weeks), (Credit/No Credit), (Formerly Math 60C)
PREREQUISITE: Math 260B. 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, 5 lecture 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, 5 lecture 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.

260 F PRE ALGEBRA: EQUATIONS AND INEQUALITIES
1 units, 5 lecture 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 linear equations and inequalities in one variable.

## 260G PRE-ALGEBRA: WORD PROBLEMS

1 unit, 5 lecture hours, ( 6 weeks), (Credit/No Credit)
PREREQUISITE: Math 260F. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Using algebra to solve word problems containing one variable.

## 260H PRE-ALGEBRA: FACTORING AND GRAPHING

1 unit, 5 lecture hours, ( 6 weeks), (Credit/No Credit)
PREREQUISITE: Math 260G. ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Rules of exponents, multiplying, dividing, and factoring polynomials. Solving quadratic equations. Graphing linear equations in two variables and solving systems of equations.

277 ARITHMETIC FOR THE LEARNING DISABLED<br>1-2 units, (4 units maximum), 6 lab hours, (Credit/No Credit), (Repeats = 3), (Formerly Math 77)<br>PREREQUISITE: None.<br>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
ADVISORY: 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-4 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors..

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. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total.(A, CSU)

## MEDICAL RECORD TECHNOLOGY

SEE HEALTH INFORMATION TECHNOLOGY

## MILITARY SCIENCE (Milsc)

## 1 INTRODUCTION TO MILITARY SCIENCE

1 unit, 1 lecture hour
PREREQUISITE: 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
PREREQUISITE: 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 129 .

## 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)
PREREQUISITE: 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. 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; 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, CSU-GE, UC, I)

## 4 JAZZ THEORY

3 units, 3 lecture hours, (Fall only)
PREREQUISITE: None. ADVISORY: Ability to read and notate music. Music 1A or 2 recommended.

Tonal, chordal, and scaler theory relating to the study, performance, and composition of jazz and other contemporary styles designed for the commercial music student. (A, CSU, UC)

## 5 MIDI MUSIC PRODUCTION

2 units, 2 lecture hours, 1 lab hour, (Spring only)
PREREQUISITE: None. ADVISORY: Ability to read and play simple melodies on a keyboard. Music 1A or 3 or 20 recommended.

Use of synthesizers, computers, and MIDI sequencing software to compose, edit, and record music. (A, CSU)

## 6 JAZZ ARRANGING

3 units, 3 lecture hours, (Spring only)
PREREQUISITE: Ability to read and notate music in treble and bass clefs. ADVISORY: Music 1A or 3 or 4 recommended.

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)
PREREQUISITE: 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 AUDIO ENGINEERING

3 units, 2 lecture hours, 3 lab hours, (Fall only)
ADVISORY: 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)
PREREQUISITE: 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)

## 112 INTRODUCTION TO FINALE

2 units, 1 lecture hour, 3 lab hours
ADVISORY: Ability to read music and basic computer skills recommended.

Use of the Finale music notation software program for the creation of musical scores and parts. (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

ADVISORY: 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 OPERA APPRECIATION

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 opera and 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

ADVISORY: 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

## 10A BEGINNING JAZZ IMPROVISATION

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3), (Formerly Music 10)
ADVISORY: Ability to play an instrument at the intermediate/advanced level is recommended. Ability to read music recommended.

Study of the fundamentals of jazz improvisation: scales, modes, the blues, simple chord progressions, ear training, development of melodic ideas. ( $\mathrm{A}, \mathrm{CSU}$ )

## 10B INTERMEDIATE/ADVANCED JAZZ IMPROVISATION

2 units, 1 lecture hour, 3 lab hours, (Repeats $=3$ )
PREREQUISITE: Music 10 A or equivalent as determined by audition. ADVISORY: Ability to read music, and to play an instrument at the intermediate/advanced level is recommended. Prior jazz improvisation experience recommended.

Study of intermediate and advanced concepts of jazz improvisation: altered scales, chordal extensions, alterations, and substitutions, and more complex jazz compositions. (A, CSU)

## 18 BASIC CONDUCTING AND SCORE READING

2 units, 2 lecture hours, (Spring only)
PREREQUISITE: Music 1 A 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, CSU-GE, 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, (Repeats = 3), (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)
PREREQUISITE: 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)
PREREQUISITE: 0wn 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, CSU-GE, UC)

## 28 BEGINNING GUITAR: LEVEL II

2 units, 1 lecture hour, 2 lab hours, (Repeats $=2$ ),
(Formerly Music 28B)
PREREQUISITE: 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 right-hand techniques, positions, extension of the fingerboard, rhythms, meters, multiline 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 performance 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 fouryear colleges and universities.

## 22 INTERMEDIATE/ADVANCED PIANO

(Formerly Music 21), (Repeats = 3)
PREREQUISITE: Music 21 or the equivalent as determined by testing. (A, CSU, UC)

## 26 INTERMEDIATE/ADVANCED VOICE

PREREQUISITE: Music 25 or intermediate or advanced level ability as determined by testing. (A, CSU, UC)

## 29 INTERMEDIATE/ADVANCED GUITAR

PREREQUISITE: 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 orchestra 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 orchestra 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 any of the following courses: Music 30, $35,36,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}, 46$, or 47.

A continuation of Music $30,35,36,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}, 46$, and 47. Advanced study of large ensemble literature (vocal or instrumental). (A, CSU, UC)

## 57 SOLO REPERTOIRE STUDIES

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: Four semesters of Music 22, 26, or 29. ADVISORY: Advanced vocal or instrumental performance skills recommended.

Study of vocal and instrumental solo music of the Baroque and Classical periods. (A, CSU)

## 58 SOLO REPERTOIRE STUDIES II

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: Four semesters of Music 22, 26, or 29. ADVISORY: Advanced vocal or instrumental performance skills recommended.

Study of vocal and instrumental solo music of the Romantic, Impressionist, and Modern periods. (A, CSU)

## 59 ADVANCED SMALL ENSEMBLES

1 unit, 3 lab hours, (Repeats = 3)
PREREQUISITE: Four semesters of Music 49. ADVISORY: Advanced vocal or instrumental performance skills recommended.

A continuation of the study of vocal and instrumental chamber music, with emphasis on small ensembles. (A, CSU)

## 73A INTERMEDIATE/ADVANCED CHAMBER ENSEMBLE (BRASS)

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on a brass instrument recommended.

Application of brass techniques through the rehearsal and interpretation of brass chamber ensemble music. Emphasis placed on music of the Baroque, Classical, and Romantic eras. Ensemble performance required. (A, CSU)

## 73B INTERMEDIATE/ADVANCED CHAMBER ENSEMBLE

 (WOODWINDS)2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on a woodwind instrument recommended.

Application of woodwind techniques through the rehearsal and interpretation of woodwind chamber ensemble music. Emphasis placed on music of the Baroque, Classical, and Romantic eras. Ensemble performance required. (A, CSU)

## 73C INTERMEDIATE/ADVANCED CHAMBER ENSEMBLE (STRINGS)

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on a string instrument recommended.

Application of string techniques through the rehearsal and interpretation of string chamber ensemble music. Emphasis placed on music of the Baroque, Classical, and Romantic eras. Ensemble performance required. (A, CSU)

## 73D INTERMEDIATE/ADVANCED CHAMBER ENSEMBLE (PERCUSSION)

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on percussion recommended.

Application of percussion techniques through the rehearsal and interpretation of percussion ensemble music. Emphasis placed on music of the Baroque, Classical, and Romantic eras. Ensemble performance required. (A, CSU)

## 74A INTERMEDIATE/ADVANCED BRASS PERFORMANCE PRACTICES

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on a brass instrument recommended.

Interpretation and technique of brass ensemble music through performance practice. Emphasis on Impressionist and 20tth Century eras. Ensemble performance is required. (A, CSU)

## 74B INTERMEDIATE/ADVANCED WOODWIND PERFORMANCE PRACTICES

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on a woodwind instrument recommended.

Interpretation and technique of woodwind ensemble music through performance practice. Emphasis on Impressionist and 20tth Century eras. Ensemble performance is required. (A, CSU)

## 74C INTERMEDIATE/ADVANCED STRING PERFORMANCE PRACTICES

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on a string instrument recommended.

Interpretation and technique of string ensemble music through performance practice. Emphasis on Impressionist and 20tth Century eras. Ensemble performance is required. (A, CSU)

## 74D INTERMEDIATE/ADVANCED PERCUSSION PERFORMANCE PRACTICES

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced skill on percussion recommended.

Interpretation and technique of percussion ensemble music through performance practice. Emphasis on Impressionist and 20tth Century eras. Ensemble performance is required. (A, CSU)

## 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, festival, and tour participation required. (A, CSU-GE, UC)

## 32 MUSICAL THEATRE PERFORMANCE

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3),
(See also Theatre Arts 24), (Formerly Music 24)
ADVISORY: Previous band, orchestra, or vocal experience as determined by audition recommended.

Rehearsal and performance of a full-length musical theatre play for public presentation. (A, CSU, 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)

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3), (Formerly Music 33)
PREREQUISITE: Ability to perform advanced high school choral music or the equivalent performance skills. Audition and approval. COREQUISITE: Music 30.

Study and performance of music literature from all eras. 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.

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)
ADVISORY: Music 26 or the equivalent as determined by audition recommended.

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

2 units, 1 lecture hour, 4 lab hours, (Repeats = 3)
ADVISORY: Advanced high school band 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 orchestra 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 COMBO

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
PREREQUISITE: Ability to perform on instrument or voice at a college level. ADVISORY: Music 4, 10; previous small group experience recommended.

Performance and analysis of a variety of 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)

## 60 SYMPHONIC CHOIR

2-3 units, 1-2 lecture hours, 3-4 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, with emphasis on major choral works of the nineteenth and twentieth centuries. Participation in concerts and festivals required. (A, CSU)

## 61 A CAPPELLA CHOIR

2-3 units, 1-2 lecture hours, 3-4 lab hours,
(Repeats = 3)
ADVISORY: Ability to perform advanced high school choral music or the equivalent performance skills (as determined by audition during the first week) recommended.

Study and performance of choral music, with emphasis on a cappella choral works of the sixteenth through nineteenth centuries. Participation in concerts and festivals required. (A, CSU)

## 63 CHAMBER SINGERS

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ )
COREQUISITE: Music 61. ADVISORY: Ability to perform advanced high school choral music or the equivalent performance skills (as determined by audition during first week) recommended.

Study and performance of vocal music, with emphasis on Renaissance and Classical chamber works. Participation in concerts and festivals required. (A, CSU)

## 64 VOCAL ENSEMBLE

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ )
COREQUISITE: Music 60. ADVISORY: Ability to perform advanced high school choral music or the equivalent performance skills (as determined by audition during first week) recommended.

Study and performance of a wide variety of vocal music, including chamber, jazz, pop, and non-Western works. Participation in concerts and festivals required. (A, CSU)

## 66 OPERA PERFORMANCE PRACTICES

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced vocal performance skills recommended.

The study, rehearsal, and performance of a major operatic work. Participation in public performances is required. (A, CSU)

## 67 MUSICAL THEATER PERFORMANCE PRACTICES

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced vocal performance skills recommended.

The study, rehearsal, and performance of a musical theater production or review, or of an operetta. Participation in public performances is required. (A, CSU)

## 68 SYMPHONIC BAND

2-3 units, 1-2 lecture hours, 3-4 lab hours, (Repeats = 3)
ADVISORY: Intermediate/advanced level skill on a band instrument recommended.

Concepts of intonation, balance, blend, basic articulation and public performance. Rehearsal and performance of symphonic band literature with emphasis on 19th and 20th works. (A, CSU)

## 69 WIND BAND

2-3 units, 1-2 lecture hours, 3-4 lab hours, (Repeats
= 3)
ADVISORY: Intermediate/advanced level skill on a band instrument recommended.

Classical literature including compositions and composers from the 17th and 18th century will be performed and studied. Concepts of technique, sales, harmony, expressive playing will be studied. Extensive sight reading and extensive public performance will be a significant part of the curriculum. (A, CSU)

## 70 STUDIO JAZZ ENSEMBLE

2 units, 1 lecture hour, 4 lab hours, (Repeats = 3)
ADVISORY: Advanced high school jazz ensemble or band experience, or equivalent performance skills recommended.

Study and performance of contemporary jazz ensemble literature. Participation in concerts and festivals required. (A, CSU)

## 71 LAB JAZZ ENSEMBLE

2 units, 1 lecture hour, 4 lab hours, (Repeats $=3$ )
ADVISORY: Advanced high school jazz ensemble or band experience, or equivalent performance skills recommended.

Study and performance of jazz ensemble literature, with emphasis on new music by emerging jazz composers. Participation in concerts and festivals required. (A, CSU)

## 72 JAZZ COMPOSER'S ORCHESTRA

2 units, 1 lecture hour, 4 lab hours, (Repeats = 3)
ADVISORY: Advanced high school jazz ensemble or band experience, or equivalent performance skills recommended.

Study and performance of modern jazz ensemble literature, with emphasis on original compositions by members of the ensemble. Participation in concerts and festivals required. (A, CSU)

## 75 COMMUNITY ORCHESTRA

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Ability to perform advanced high school band or orchestra music or the equivalent performance skills (as determined by audition during the first two weeks) recommended.

Study and performance of orchestral music, with emphasis concerti featuring student and community soloists. Community musicians are encouraged to participate. Participation in all public performances is required. (A, CSU)

## 76 COLLEGE PHILHARMONIC ORCHESTRA

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Ability to perform advanced high school band or orchestra music or the equivalent performance skills (as determined by audition during the first two weeks) recommended.

Study and performance of orchestral music, with emphasis on major works of the eighteenth and nineteenth centuries. Participation in all public performances is required. (A, CSU)

## 77 STUDIO JAZZ COMBO

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
ADVISORY: Ability to perform on an instrument or voice at college level. Music 10A or 10B recommended.

Study and performance of mainstream jazz literature for the small ensemble. Participation in concerts and festivals required. (A, CSU)

## 78 LAB JAZZ COMBO

2 units, 1 lecture hour, 3 lab hours, (Repeats $=3$ )
ADVISORY: Ability to perform on an instrument or voice at college level. Music 10A or 10B recommended.

Study and performance of contemporary jazz literature for the small ensemble, with emphasis on original compositions. Participation in concerts and festivals required. (A, CSU)

# NATIVE AMERICAN STUDIES 

SEE AMERICAN INDIAN STUDIES

## NURSING

## REGISTERED NURSING (RN)

## 1 FUNDAMENTAL NURSING THEORY AND PROCESS

5 units, 5 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 1A recommended.

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 1A recommended.

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)

PREREQUISTTE: 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 LABORATORY

2.5 units, 15 lab hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of "C" or better. COREQUISITE: 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 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)
PREREQUISTTE: 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. COREQUISITE: 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 medicalsurgical 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)

PREREQUISTEE: 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 CLINICAL

2.5 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 medicalsurgical 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 new registered nurse graduate, including professional perspectives, legal and ethical issues, and organization communication. (A, CSU)

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-4 units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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)

## 23 MEDICATION MATH

0.5 units, 2 lecture hours, ( 4 weeks), (Credit/No

Credit), (Repeats $=1$ )
COREQUISITE: Acceptance in or current enrollment in the Registered Nursing Program.

Calculation of medication dosages, including review of mathematical concepts. (A, CSU)

## 25 INTRODUCTION TO NURSING PROCESS

0.5 units, 2 lecture hours, ( 4 weeks), (Credit/No

Credit), (Repeats =1)
COREQUISITE: Acceptance in or current enrollment in the Registered Nursing Program.

Introduction to the nursing process and development of nursing care plans. (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 medicalsurgical 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)

## 201 NCLEX-RN REVIEW

2 units, 2 lecture hours, (Credit/No Credit),
(Repeats = 2)
COREQUISITE: Registered Nursing 7 or Registered Nursing 11.
Review and preparation for National Council Licensure Exam for

Registered Nursing (NCLEX-RN). Includes test format, content review, and test-taking strategies.

## 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: BA 20. 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
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
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
PREREQUISTE: Paralegal 1.
Marriage, divorce, nonmarital cohabitation, invalid marriages, separation, annulment, client interviewing, commencing the proceedings, orders pending trial, support, child custody and visitation, marital property, adoption and parentage. (A, CSU)

## 4 PROBATE

3 units, 3 lecture hours
PREREQUISTE: 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
PREREQUISTE: 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 BG0 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
PREREQUISTTE: 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 law including 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 law including 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 software 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
PREREQUISITE: 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, levy-
ing 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
PREREQUISITE: 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, (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)

## PHARMACY TECHNOLOGY

## 101 PHARMACY TECHNICIAN TRAINING COURSE

11 units, 16 lecture hours, 14 lab hours, (10 weeks), (Credit/No Credit)

## PREREQUISITE: None.

Meets the requirements for entry-level Pharmacy Technician. Roles and responsibilities of the pharmacy technician, pharmacy math and calculations, anatomy and physiology, pharmacology, pharmacy law, medication distribution, and control measures. (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. (CAN PHIL 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 1A or 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 1A or 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 PHIL 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-GE)

## 5 PHILOSOPHY OF RELIGION

3 units, 3 lecture hours
ADVISORY: English 1A recommended.
The rational scrutiny of the central claims of the Western monotheistic tradition. (A, CSU-GE, UC, I)

## 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. (CAN PHIL 6) (A, CSU-GE, UC)

## PHOTOGRAPHY (PНото)

## 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
ADVISORY: Photo 5. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Entry-level course for the photography certificate or degree program. 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 utilizing text and classroom information. Classroom discussion of professional and student photographs. (CAN ART 18) (A, CSU-GE, UC)

## 12 PHOTOSHOP FOR PHOTOGRAPHERS

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Photo 22)
ADVISORY: Applied Technology 10 or equivalent. Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Survey and use of electronic still photography: image capture, processing, storage, output, and legal/ethical issues. Scan film and prints, use of digital cameras, Macintosh computers, Adobe Photoshop software, and desktop printers to produce a portfolio of digital photographs. (A, CSU)

## 15 PHOTOGRAPHY AND VISUAL LITERACY

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
COREQUISITE: 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 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 and darkroom processes. Field trips as required. (A, CSU-GE, UC)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

$1-4$ units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 20 ADVANCED BLACK AND WHITE PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
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 $4 \times 5$ view camera projects, readings, and class critiques. (A, CSU-GE)

## 23 DIGITAL DARKROOM

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ) PREREQUISITE: Photo 12 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, (Repeats = 3), (Formerly Photo 23)
prerequisite: Photography 10 or equivalent. ADVISORY: Photography 15,12 or AT 10 or equivalent recommended.

Studio and environmental commercial portraiture. Emphasis on style and the psychology of body language, lighting, composition, and facial expression. Traditional film and digital photography technologies used with small and medium format cameras. (A, CSU)

30 PHOTOJOURNALISM AND VISUAL COMMUNICATION
3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
prerequisite: Photography 10 or equivalent. ADVISORY: Photography 12 or AT 10 or equivalent recommended.

Theories and practices of photography in the field of mass communication. Photography as it is applied to: newspapers, magazines, public relations, websites, and business applications. Emphasis on communication of ideas, storytelling, and social reportage using the power of traditional film and digital still photographs. (A, CSU)

## 33 BASIC COLOR PHOTOGRAPHY

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Photo 30 and Photo 40)
PREREQUISITE: Photography 10 or equivalent.
The visual and technical approaches to color photography; light qualities, color visual literacy and design, exposure control, film characteristics, color slide processing and printing, alternative processes, and introduction to digital color applications. Class demonstrations and discussion of color slides and prints produced by students. (A, CSU)

## 35 LIGHTING PRINCIPLES

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Photo 24)
PREREQUISITE: Photography 10 or equivalent. ADVISORY: Photography 12 or equivalent recommended.

Photographic lighting, principles, characteristics, and styles. Emphasis on problem solving and expression using studio lighting techniques. Use of traditional film and digital photography workflows. (A, CSU)

## 40 PHOTO EDITING AND MARKETING

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
PREREQUISITE: Photography 10 or equivalent. ADVISORY: Photography 12,15 , or equivalent recommended.

Theories and practices of picture selection for publication within a visual environment like corporate publications, newspapers, magazines, and websites where visual communication enhances the written word. Advance theory in communication with emphasis on visual language, organization and design as well as market targeting, portfolio presentation and strategies for success in a competitive market. (A, CSU)

## 45 INDEPENDENT PHOTO STUDY

3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ )
PREREQUISITE: Photography $15,20,23,25,30,33,35$, 40 , or equivalent.

Individual photographic projects designed to allow the student to expand on a specific area of previous study. The production of a pre-employment 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)

PREREQUIITTE: None.
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)

PREREQUISITE: None.
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)
PREREQUIIITE: None.
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)
PREREQUIITTE: None.
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)

PREREQUISITE: None.
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)
PREREQUISITE: None.
Designed to test individuals, assign an exercise program and re-test to note progress. Emphasis on individual training. Use of weightifting machines. (A, CSU, UC)

## 10 RACQUETBALL

1 unit, 2 lab hours, (Repeats = 3), (Formerly PE ACT 12A)
PREREQUISITE: None.
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)
PREREQUISITE: None.
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)
PREREQUISITE: None.
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) PREREQUISITE: None.
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) PREREQUISITE: None.
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)
PREREQUISITE: None.
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)
PREREQUISITE: None.
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) PREREQUISITE: None.
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 <br> 1 unit, 2 lab hours, (Repeats = 3) <br> PREREQUISITE: None.

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)

[^4]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)
PREREQUISITE: None.
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)
PREREQUISITE: None.
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)
PREREQUISITE: None.
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)
PREREQUISITE: None.
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)

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 <br> 3 units, 3 lecture hours, (Formerly PE PRE 35) <br> PREREQUISITE: None.

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. (CAN KINE/PE 10) (A, CSU, UC)

## Intercollegiate activity courses

Medical clearance resulting from a physical examination by the college's team physician is required prior to a student's first enrollment in 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, UC)

## 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 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)

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)

## 272 Physical Education

## 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 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)

## 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)
ADVISORY: 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)

## 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 non-science 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, CSU-GE, UC, I)

## 274 Political Science

## 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)

## 4A 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 related majors. (CAN PHYS 8) (A, CSU-GE, UC, I)

## 4 B 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)

## $4 C$ PHYSICS FOR SCIENTISTS AND ENGINEERS

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Physics 4A. Physics 4 B 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-GE, UC, I)

## 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-GE, UC, I)

## 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)
ADVISORY: 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, CSU-GE, 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. (A, 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)

## 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 typical and atypical physical, cognitive and psychosocial development at each major stage of life from conception to death. All major topics of human development (e.g. human behavior, sexuality, nutrition, health, stress, key relationships of humankind to the social and physical environment, and implications 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)

## RADIOLOGIC TECHNOLOGY (RAD)

## 1 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: Eligibility 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)

## 1B 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 1A and 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 hoursPREREQUISITE: 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)
PREREQUISITE: 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 3 A .

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 <br> 11 units, 33 lab hours

PREREQUISITE: Radiologic Technology 3A and 3B. COREQUISITE: Radiologic Technology 4A.

Advanced radiographic exposure and positioning; procedures in medi-cal-surgical conditions. (A, CSU)

## 4C ADVANCED RADIOGRAPHIC POSITIONING LABORATORYCRANIUM

1 unit, 3 lab hours
PREREQUISITE: Radiologic Technology 1B and 2B. COREQUISITE: Radiologic Technology 4A and 4B.

Demonstration and practice in positioning of the skull, facial bones, paranasal sinuses and temporal bones for radiographic examination. (A, CSU)

## 5A SPECIAL PROCEDURES IN RADIOLOGIC TECHNOLOGY

 2 units, 2 lecture hoursPREREQUISITE: 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. COREQUISITE: 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)
PREREQUISITE: 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
PREREQUISITE: 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, multifamily, 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 special-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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL 1-4 units, (Repeats $=3$ )
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major. Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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; fede-ral, 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. COREQUISITE: 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. COREQUISITE: 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; cardiopulmonary resuscitation; basic pharmacology. (A, CSU)

## 18 PHYSIOLOGY OF THE RESPIRATORY SYSTEM

2 units, 2 lecture hours
PREREQUISITE: Acceptance into the Respiratory Care Program. COREQUISITE: 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
PREREQUISITE: Acceptance into the Respiratory Care Program. COREQUISITE: Respiratory Care 16, 17, and 18. ADVISORY: 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

 CARE10 units, 8 lecture hours, 8 lab hours
PREREQUISITE: 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
PREREQUISITE: 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 procedures. (A, CSU)

## 23 CLINICAL APPLICATIONS IN RESPIRATORY CARE II

8 units, 2 lecture hours, 22 lab hours, (Spring)
PREREQUISITE: Respiratory Care 22. COREQUISITE: 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)
PREREQUISITE: Respiratory Care 22. COREQUISITE: 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, institutions, stratification, inter-/intra-group dynamics, multi-/cross-cultural 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 socialpsychological aspects of ethnicity and race, and the examination of other non-dominant groups in the United States. (A, CSU, UC, I)

## 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.

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 Human Services 7 and Women's Studies 7)
ADVISORY: Eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

A micro 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, I)

## 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

3 units, 3 lecture hours
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) PREREQUISITE: None.
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 SOC 160.

## 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)

## 177 (COURSE TITLE TO BE SELECTED)

1/2-3 units, 9 lecture hour equivalents per $1 / 2$ unit of credit. (Formerly Special Studies 77)
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 nontransfer credit. (A)

## 277 (COURSE TITLE TO BE SELECTED)

1/2-3 units, 9 lecture hour equivalents per $1 / 2$ unit of credit, (Formerly Special Studies 77)
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 nondegree, nontransfer credit.

## 377 (COURSE TITLE TO BE SELECTED)

0 units, lecture hours \& lab hours to be determined,
(Formerly Special Studies 77)
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 noncredit.

## 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
ADVISORY: 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. (CAN SPCH 8) (A, CSU-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 $=3$ )
ADVISORY: 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)

## 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.

## 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)

## 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, UC)

## 25 THEATRE CRAFTS I

3 units, 3 lecture hours, (Formerly Theatre Arts 34A)
COREQUISITE: 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)
ADVISORY: 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 $=2$ )
ADVISORY: 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.

A personal 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 nontheatre 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, UC)

## 43 INTERMEDIATE ACTING

3 units, 3 lecture hours, (Formerly Theatre Arts 31B)
PREREQUISTE: Theatre Aits 41 or Theatre Aits 42 . ADVISORY: Theatre Arts 31A 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. Selfdirected scenes. Public performance. (A, CSU-GE, UC)

## 348 SENIOR PLAY PRODUCTION

0 units, 1 lecture hour, 9 lab hours, (16 weeks), (Unlimited Repeats), (Formerly TA 80)
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.

Oxyacetylene welding and cutting, shielded metal arc, gas metal 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 arc (MIG) and gas tungsten arc (TIG). (A, CSU)

## 3A WELDING DESIGN AND FABRICATION

5 units, 3 lecture hours, 7 lab hours
ADVISORY: Welding $2 B$ 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 3 A.
A continuation of Welding 3 A in 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 2 B 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 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

## $1-4$ units, $($ Repeats $=3)$

COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment directly related to the student's major: Offered under specific majors.

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. Maximum of 4 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (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.

A micro 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)

## 30 ASIAN-AMERICAN WOMEN

3 units, 3 lecture hours, (See also Asian-American
Studies 30)
ADVISORY: Asian-American Studies 15, and eligibility for English 125 and 126 or English 153 or ESL 67 and 68 recommended.

Historical experiences of early and later Asian immigrant women. Emphasis is on Asian American women today. Topics include growing up Asian American, relationship with parents, marriage, identity, raising children, doll image, voice, and American feminism. (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 non-traditional 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.

A survey 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)

## 45 RE-ENTRY CAREER PLANNING AND DEVELOPMENT <br> 1 unit, 2 lecture hours, ( 9 weeks), (See also Guidance Studies 45) <br> PREREQUIIITE: None. <br> 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)
PREREQUISITE: None.
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, 1-3 lecture hours, (Credit/No Credit), (Unlimited repeats), (Open Entry/Open Exit) PREREQUISTTE: None.
Designed for students with barriers to employment; including but not limited to disabilities, Calworks, lack of employment history, and lack of job seeking skills. 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 <br> INTERNSHIP MODEL (SWIM) <br> 1-12 units, 3.33-40 lab hours, (Credit/No Credit), <br> (Unlimited repeats), (Open Entry/Open Exit) <br> PREREQUISITE: None.

Designed for students with barriers to employment; including but not limited to disabilities, CalWORKs, lack of employment history, and lack of job seeking skills. 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 them 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 hours of volunteer work during the semester. Sixty hours of volunteer employment per unit up to a maximum of 720 hours for 12 units.

## 203 SECURING APPROPRIATE INCOME AND LABOR (SAIL)

2.5 units, 2.5 lecture hours, (Credit/No Credit),
(Unlimited repeats), (Open Entry/Open Exit)
PREREQUISITE: WAVE 201 and 202.
Designed for students with barriers to employment; including but not limited to disabilities, Calworks, lack of employment history, and lack of job seeking skills that have successfully completed the DIVE and SwIM components of the WAVE Program. Emphasis is on active job search, which includes completion of resume portfolio, submittal of job applications, seeking and pursuing job leads, interviews, follow-up on interviews, securing and retaining competitive and gainful employment.

## 288 Work Experience, General

## WORK EXPERIENCE, GENERAL (wkexp)

19 WORK EXPERIENCE (COOPERATIVE), GENERAL
1-3 units, (Repeats = 3)
COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including work experience. Summer Session: Must be enrolled in at least one other course. Supervised employment not directly related to the student's major.

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. Maximum of 3 units per semester, 6 units total. May be repeated up to three times for not more than 6 units total. (A, CSU)

## SPECIAL AREAS OF STUDY

## Career \& Technology Center

Located off Fresno City College's main campus, the Career \& Technology Center offers a learning environment for practical hands-on education. Yearround registration is in effect for a variety of noncredit, open-entry 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 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 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 (вмстс)

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.

## ELECTRONIC TECHNOLOGY (Etctc)

## 370 COMPUTER TECHNICIAN

0 units, 6.65 lecture hours, 13.35 lab hours, (30
weeks), (Repeats $=3$ )
PREREQUISITE: None.
Practical and theoretical training in basic microcomputer operations and repair. Includes exposure to applications that are part of the windows operating system.

## 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 (MмCTC)

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 measurement, 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, $\mathrm{AC} / \mathrm{DC}$ circuits, motors, motor starters, relays, wiring, troubleshooting, schematic reading, test instruments.

## Developmental Education Program

The Developmental Education Program is designed to prepare students for 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. 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 depends upon English and math placement testing results. When placement test 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. A guidance 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

- Emphasis on helping students succeed at the college

D Specially trained teachers and counselors who understand and are sensitive to student worries and fears

## Developmental Education Curriculum

## Units

## ENGLISH WRITTEN EXPRESSION

English 250, Basic Writing .....  4
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
SKILL REINFORCEMENT
Biology 270, Biology Readiness. ..... 3
English 265, Reasoning and Decision Making for Daily Living ..... 2
Math 265, Introduction to Math, Problem Solving .....  2
OTHER RECOMMENDED COURSE
Guidance Studies 270, 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
D Specially selected, experienced, and highly qualified faculty

- Faculty mentors

D Registration, counseling, and transfer assistance

D Scholarships
D 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

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

- Superior performance on an essay, and

D 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 1A, Honors Science Colloquium.............................................. 1
Transferable electives ..................................................................... 4
Total 13-17
SECOND SEMSTER
Units
ART 5H or 6H, Honors Art History .......................................................... 3
ENGL 1BH, Honors Introduction to Literature ......................................... 3
HIST 1H or 2H, Honors Survey of Western Civilization ............................ 3
HONORS 1B or 1C, Honors Humanities Colloquium............................... 1
PHIL 1AH, Honors Theories of Knowledge/Existence/Beauty .................. 3
Transferable electives .................................................................-. $6-.10$
Total 13-17
THIRD SEMESTER Units
ANTHRO 2H, Honors Cultural Anthropology........................................... 3
HONORS 1E, Honors Social Science Colloquium ................................... 1
HONORS 1F, 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
ENGL 3H, Honors Critical Reading \& Writing......................................... 3

HONORS 1D, Honors Business \& Economics Colloquium....................... 1
Transferable electives ....................................................................-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 1 A in 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.

## Work Experience (Cooperative) 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 experience or three (3) units per semester for general work experience. Students can earn no more than a total of 16 semester units of Cooperative Work Experience Education subject to the limitations as described below.

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 visitations at which time he/she confers with the student's supervisor. The student'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 experience education, the college shall grant credit to a student not to exceed a total of sixteen semester credit hours.

1. General work experience education: Enrollment limited 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 earned 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

Students should review the catalog of the college to which they plan to transfer to determine the number of units of cooperative work experience that will 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, students enrolling in occupational/
vocational work experience courses must be employed in occupations which 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, A-102. 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
D Air Conditioning
D Anthropology
D Automotive Technology

- Apprenticeship

D Business Administration
D Business \& Technology
D Cabinetmaking Technology
D Child Development
D Construction (Carpentry)
D Criminology
D Drafting

- Educational Aide

D Educational Aide/Paraeducator
D Electrical Systems Technology
D Fashion Merchandising

- Food Service Management
- Graphic Communications

D Home Economics
D Human Services
D Information Systems
D Journalism
D Marketing
D Medical Assisting
D Photography
D Recreation
D Registered Nursing
D Theatre Arts - Technical Theatre
D Welding
Note: Actual class offerings vary by semester.

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Associate Dean of Students, TRIO/
Director, EOPS
Dr. Ernest J. Smith
Interim Associate Dean of Students, Counseling and Guidance; and Associate Dean of Students,
Career \& Resource Development

## Faculty and <br> 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
A.A., Modesto Junior College
B.A., California State University, Stanislaus
M.A., San Jose State University

Anderson, Lydia (1997)
Business Administration/Marketing
A.A., 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

Arakelian, Charlotte A. (1983)
Counselor, Disabled Students
Programs \& Services
B.S., M.A., California State University, Fresno

Arechiga, Mary L. (1989)
English
A.A., Fresno City College
B.A., M.A., California State University, Fresno

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

Avery, Douglas D. (2002)
Mathematics
B.A., California State University, Fresno
M.A., Fresno Pacific University

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

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 California, Riverside

Begley, Polly (2000)
Speech
B.A., M.A., San Diego State

Bertolani Jr., 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
A.A., 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

Byrd, Monique (2001) Accounting
B.A., Morris Brown College
M.P.A., Georgia State University

Byrns, Dennis C. (1995)
Fire Technology
A.A., 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
A.A., Kings River Community College
B.A., M.A., California State University, Fresno

Carlisle, Elizabeth (2003)
Speech
B.S., Southern Illinois University
M.A., Columbia University

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
A.A., University of Maryland B.A., M.L.S., San Jose State University

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
A.A., Porterville Junior College
B.A., California State University, Fresno
M.A., Fresno Pacific University

Cleveland, Sandra (1976)
Nursing
B.S.N., 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, Jeanette A. (1982)
Learning Disabilities, English
A.A., 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
A.A., Monterey Peninsula College
A.S., Fresno City College
B.A., California State University, Fresno

Cuevas, Monica C. (1999)
Director, Manchester Educational Resource Center \& CalWORKs
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, Julie (1999)
Music
B.A., San Diego State University
M.Mus.Ed., University of Northern Colorado

Dana, Michael E. (1990)
Music
B.A., M.A., California State University, Fresno

Daniels, Stevie (1997)
Coordinator Academic Computing,
ESL
A.A., College of the Sequoias
B.S., M.S., California State University, Fresno

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

Doffoney, Ned (2002)
President
B.A., M.S., University of Southwestern

Louisiana
Ed.D., Pepperdine University
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/Marketing
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

Edison, James 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., M.A., California State University, Fresno

Elliott, Jacqueline (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)
District 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, James (1990)
English
B.A., Howard Payne College
M.A., Rice University

Ph.D., Texas A \& M University
Farley, Lee (1981)
Associate Dean of Students/
Director
B.A., M.A., California State University, Bakersfield
Ed.D., University of Southern California
Ferrer, Sharon (1995)
Spanish
B.A., M.A., California State University, Fresno

Fitzer, John (2001)
Linguistics/ESL
B.A., California State University, Fresno
M.Ed., M.B.A., State University of New York, Buffalo
Fletcher, Eric (1999)
Forensics, Speech
B.A., M.A., California State University, Fresno

Forestiere, Marc C. (1996)
Information Systems
B.S. California State University, Sacramento
M.A., Fresno Pacific College

Fox, Robert E. (1980)
Dean of Students
B.A., Parsons College
M.A., University of Northern Iowa

Francis, Charles (1997)
Director, Training Institute
B.A., M.S., California State University, Fresno

Fransen, Robert H. (1991)
Metal Fabrication, Welding
A.S., Texas State Technical Institute
B.S., California State University, Chico

Franz, James J. (2000)
Economics
B.A., State University of NY at Plattsburg
M.A., California State University, San Diego

Freeman, Charles (1985)
Nursing
A.A., Fresno City College
B.S.N., Humboldt State
M.S.N., California State University, Fresno

Frese, Joan (1995)
Information Systems
B.S., University of Wisconsin
M.A., Chapman University

Friesen, Tiffany (2001)
Mathematics
B.A., M.A., Fresno Pacific University

Fuller, Pauline M. (1977)
Counselor
A.A., Fresno City College
B.A., M.A.Ed., California State University, Fresno
Gant, Ralph (1985)
Speech
A.A., Merritt Junior College
B.A., M.A., San Francisco State University

Garoupa, Clifford (1997)
Human Services
A.A., Fresno City College
M.S., Ohio State University
J.D., San Joaquin College of Law

Gartman, Grace (1989)
Tutorial Resources
B.A, M.A., University of Pacific

Garza-Lozano, Nereyda (1999) Spanish
B.A., M.A., California State University, Fresno

Gaudin, Roderick F. (1966)

## Sociology

A.A., Long Beach City College
B.A., M.S., San Jose State College

Gennity, Joseph M. (1996) Biology
B.A., New York University Ph.D., Texas A \& M
Germond, Oliver (2001) Physical Education B.S., California State University, Northridge M.S., National University

Gonzalez, Eileen (2000)
Nursing
B.S.N., M.S.N., California State University, Fresno

Gonzales, Paul (1989)
Radiologic Technology
A.S., Fresno City College
B.S., California State University, Fresno M.S., National University

Good, David (1990)
English
B.A., M.A., California State University, Fresno

Graham, Ronald J. (1987)
Criminology
A.A., Hartnell College
B.A., California State University, Sacramento
M.S., California State University, Fresno

Ed.D., University of San Francisco
Granata, Charity (1985)
Speech
B.A., M.A., California State University, Fresno

Grover, Stephen C. (1984)
Mathematics
B.S., University of Wisconsin, Madison
M.S., Central Missouri State University

Guerra, Michael
College Business Manager
B.A., California State University, Fresno
M.A., University of San Francisco

Guglielmino, Rosemarie Spight (1989) English
A.A., West Hills Community College
B.A., California State University, Humboldt
M.A., California State University, Fresno

Halls, Thom (2001)
Photography
B.A., California Polytechnical State

University, San Luis Obispo
Haney, Michael E. (1993)
Automotive Technology
A.S., Fresno City College
B.A., Pacific University

Harmon, Beverlee Jill (1990)
Counselor
B.A., California State University, Fresno
M.A., California Polytechnic State University, SLO
Harriet, Sydney H. (1970)
English, Speech
B.A., Michigan State University
M.A., San Francisco State College

Ph.D., University of Oregon
M.S.W., California State University, Fresno

Psy.D., University of Denver
Harris, Renee (1999)
Counselor
B.A., M.S., California State University, Fresno

Hart, Robyn R. (1997)
Business \& Technology
A.S., Merced Junior College B.S., California State University, Fresno M.B.A., National University

Haskell, Marc C. (1999)
Business \& Technology
B.A., California State University, Fresno
M.B.A., National University

Haug, Paula (1999)
Speech
B.A., M.A., California State University, Fresno

Hayden, Layne E. (1999)
Automotive Collision Repair Technology
A.A., National University, Fresno
J.D., William Howard Taft

He, Jiandong (Jin) (1999)
Mathematics
B.S., Jilin University, Peoples Republic of China
M.S., California State University, Fresno

Herrick, Lee (1997)
Developmental English
B.A., M.A., California State University, Stanislaus
Hickman, Katherine (2001) Criminology
B.S., M.S., California State University, Fresno Ed.D., University of San Francisco
Himes, Daniel J. (1987) Instructor/Coordinator, Cisco Academy and Apprentice Programs A.A., Modesto Jr. College B.S., California State University, Fresno

Hodges, Cynthia (1990)
American Sign Language
B.S., Gallaudet College
M.S., University of Arizona

Hoff, A. Nancy (1981)
Nursing
B.S.N., University of Santo Tomas,

Philippines
M.S.N., California State University, Fresno

Holford, Susan (2001)
Human Services, Sociology
B.S.W., San Jose State
M.S.W., California State University, Sacramento
Holland, Nancy (2001) Business Administration/Marketing B.A., California State University, Fresno M.S., Chapman University

Honda, Lorence (1997) Music
B.A., California State University, Fresno
M.M., University of Southern California

Hopper, Clarence (1999)
Mathematics
B.S., M.S., California State University, Fresno

Hostetler, Robin L. (1979)
Geography
A.A., Fresno City College
B.A., University of California, Santa Barbara
M.A., California State University, Fresno

Huneault-Schultze, Sylvie (2001)
ESL
A.A., Cape Cod Community College
B.A., University of Massachusetts, Boston
M.A., Monterey Institute of International

Studies
Ikeda, Deborah J. (1981)
Interim Dean of Instruction
B.S., M.Ed., University of Illinois, Urbana

Jackson, Jannett (1990)
Associate Dean of Instruction,
Learning Resources
B.A., M.A., California State University, Fresno

Ph.D., University of Texas, Austin
Jamison, Gregory (1997)
Mathematics
B.A., M.A., California State University, Fresno

Jansen, Janice R. (1975)
Physical Education, Dance
A.B., (History), Stanford University
M.A., (Education), Stanford University
M.A., (Dance), University of California,

Los Angeles
Jimenez, Joaquin (1988)
District Associate Dean of Financial
Aid
A.A., Orange County Community College, New York
B.A., M.Ed., University of Buffalo

Johal, Sarbjit (1999)
Political Science
B.A., University of Reading (UK)
M.A., University of British Columbia

Ph.D., University of California, Santa
Barbara
Johansson, Carl A. (1999)
Biology
A.A., Fresno City College
B.S., California State University, Fresno
M.S., Brigham Young University

Joseph, James (1999)
Political Science
B.A., M.A., California State University, Fresno

Ph.D., University of California, Riverside

Kadingo, Carol J. (1984)
Physical Education
B.S., Lock Haven University
M.S., Pennsylvania State University

Kamimoto, Martin S. (1996)
Automotive Technology
A.S., Fresno City College
B.S., M.S., California State University, Fresno

Kato-Gee, Jacquelyn (2001)
Nursing
A.S., El Camino College
B.S.N., California State University, Fresno
M.S.N., California State University,

Dominguez Hills
Kawagoe, Kirk (1997)
Chemistry
B.A., University of California, Santa Cruz

Ph.D., University of North Carolina, Chapel Hill
Keller, Charles F. (1977)
Adaptive Physical Education
B.S., University of Santa Clara
M.A., San Jose State University

Kennedy, Harry L. (1984)
Journalism, English
B.A., University of Dayton, Ohio
M.A., American University, Washington, D.C.

Ph.D., Ohio University
Kim, Daniel E. (1989)
Coordinator, Institutional Research
B.A., Seoul National University
M.Ed., University of Idaho

Ph.D., Washington State University
Kirkhart, Jerry L. (1989)
Biology
A.A., Fresno City College
B.A., California State University, Fresno
M.A., Humboldt State University

Kulbeth, Jean (1997)
Dental Hygiene
A.A., San Jose City College
A.S., Fresno City College
B.S., M.S., California State University, Fresno

Lane, W. Keith (1968)
Business Administration/Marketing
B.S., California State University, Fresno

Ed.D., Nova University
Lewis, Kristin (1995)
English
B.A., Colorado State University
M.Ed., Voldosta State College

Liddle, Lee D. (1989)
Business \& Technology
B.S., California State University, Fresno
M.S., University of San Francisco

Linder, Colby (2001) Biology
B.A., M.A., California State University, Fresno

Lindley, Edward V. (1984) Chemistry
B.S., M.S., California State University, Fresno

Ph.D., Washington State University
Lindsey, Cecil (1976)
Electronic Technology B.V.A., M.A., California State University, Fresno

Lindstrom, Richard J. (1994) Director, Police Academy B.S., M.S., California State University, Fresno

Loftis, Darlene (1991)
High Tech Center
B.A., California State University, Fresno
M.A., Fresno Pacific College

Lopez, Bradley M. (1975)
Health Science
A.S., Loma Linda University
B.A., M.S., California State University, Fresno Ed.D., University of California, Davis
Lopez, Rachel G. (1990)
English B.A., M.A., California State University, Fresno

Lourido-Habib, Claudia (2002)
Architecture/CADD
B.A., California State University, Fresno

Luck, Emory F. (1984)
Physical Education
B.S., M.A., University of Michigan

Ph.D., University of Illinois
Luckenbach, Roger (1998) Biology
B.S., M.S., Ph.D., University of California, Berkeley
Lund, Edward L. (1988)
Counselor, Disabled Students
Programs \& Services
B.A., M.S., St. Cloud State College

Machado, Gayle (1996)
Mathematics
B.A., California State University, Northridge M.S., California State University, Los Angeles

Makofske, James P. (1989) Accounting, Information Systems B.S., B.A., University of Central Florida M.B.A., Chapman College

Martin, Sheila (1990)
Business \& Technology
A.A., Saddleback College
B.A., M.S., National University, Irvine

Martinez, Renato (1999)
Spanish
M.A., Ph.D., University of California, San

Diego
Martinez, Robert II (2000)
Electrical Systems Technology
B.S., California State University, Fresno

Mascarenas, Timothy E. (1971)
Automotive Technology
B.A., California State University, Fresno

Mateo-Laeno, Mary Ann (1990)
Child Development Center
A.A., Bakersfield College
B.A., M.A., Pacific Oaks College, Pasadena

McCafferty, Karen (1998)
English
B.A., California State University, Fresno
M.A., California State University, Fresno

McClain, Mary Jane (1999)
Medical Assisting
Surgical Technology
A.S., Fresno City College
B.S., California State University, Fresno
M.S.N., University of Phoenix

McCollough, Mark D. (1999) Computer Aided Design/Computer Aided Manufacturing CAD/CAM
A.A., Hartnell College
B.A., California State University, Long Beach

McCully, Brian J. (1989)
Paralegal
A.A., Fresno City College
B.A., California State University, Fresno
J.D., Hastings College of Law

McLeod, Todd (2001)
Information Systems
B.A., University of California, Santa Cruz
M.B.A, California State University, Fresno

Mendez, Linda (1999) Counselor
B.A., M.A., California State University, Fresno

Mericle, Margaret E. (1999)
Associate Dean of Instruction, Social Science Division
A.B., Ohio University M.A., Ph.D., State University of New York at Stony Brook

Merlier, Christiane M. (1984)
ESL, French
A.A., American College in Paris
B.A., University of Colorado
M.A., University of Miami
M.A., San Francisco State University

Meserve, Peter (2001)
Geography
B.A., University of Kansas
M.A., Ph.D., University of Washington

Meyer, Marilyn (1985)
Associate Dean of Instruction,
Business Division
B.S., M.S., California State University, Fresno

Ed.D., University of California, Davis
Miller, Bruce A. (1996)
Electrical Systems Technology
A.A.S., Ferris State College, Michigan
B.S., California State University, Fresno

Miller, Mary Beth (2001)
Child Development
B.S., M.A., California State University, Fresno

Minar, Cynthia J. (2000)
Anthropology/Archaeology
B.A., California State University, Long Beach
M.A., Ph.D., University of California,

Riverside
Mooneyham, David E. (2003)
Maintenance Mechanic (CTC)
B.S., California State University, Fresno

Moore, Dianne (2001)
Director of Nursing
B.S.N., Hunter College
M.P.H., Columbia University School of Public Health
M.N., University of California, Los Angeles

Ph.D., New York University
Moore, Marilyn (1984)
Child Development
B.A., M.A., Stanford University

Moses, John (1999)
English
A.B., Albright College
M.A., Kutztown State College

Ph.D., Miami University
Muldoon, Marcia (1995)
English
B.A., University of California, Riverside
M.A., University of California, Irvine
(English)
M.A., California State University, Los Angeles (Theatre Arts)

Murphy, Connie J. (1984)
Business \& Technology
A.A., Fullerton Jr. College
B.A., California State University, Fullerton
M.B.A., California State University, Fresno

Navarro-Rodriquez, Teresa (2000)
English
B.A., M.A., California State University, Fresno

Neal, Stanley B. (1990)
Welding, Metal Fabrication
A.A., Fullerton College, Fullerton
B.S., M.A., California State University, San Luis Obispo
Neufeld, Kenley (2001) Librarian
B.A. University of California, San Diego M.L.S., San Jose State University

Nishimoto, Henry (1980) Economics
B.A., St Cloud
M.A., California State University, Fresno

Nitzsche, Eric J. (1996)
Construction
B.A., California State University, Fresno

Ockey, Debbie (1996)
Linguistics/ESL
B.A., M.A., California State University, Fresno

Ohanian, Gregory (1999)
Physics, Engineering
B.A., University of Southern California
B.S., California State University, Fresno
M.S., University of Southern California

Olson, Rodney G. (2002) Biology
B.S., M.S., California State University, Fresno

Olson, Kenneth E. (1990)
Electronic Technology,
Automated Technologies
A.S., Fresno City College
B.S., California State University, Fresno

Ostrander, Theodore E. (1989)
Mathematics, Developmental Math
B.A., California State University, Fresno
M.A., Fresno Pacific College

Ostrand-Hess, Sheri (1999)
Physical Education
B.A., California Polytechnic, San Luis Obispo
M.A., Azusa Pacific

Owens, Daniel L. (1999)
Information Systems
B.S., California State University, Fresno
M.B.A., National University

Pacheco, Joanne (2001)
Dental Hygiene
A.S., Fresno City College
B.A., Fresno Pacific University
M.A., Alliant International University

Palmer, Richard (1990)
Biology
B.S., Oregon State University
M.S., California State University, Fresno

Parks, John L. (1996)
Air Conditioning
A.A., West Hills Community College
B.A., California State University, Fresno
M.A., National University, San Diego

Pinkard, Joyce (1997)
Spanish
B.A., M.A., Mississippi State University

Polanowski, Craig P. (1991)
Graphic Communications
A.A.S., Brookdale Community College, N.J.
B.S., Trenton State College, New Jersey
M.Ed., University of Massachusetts

Poole, Thomas Craig (1999)
Geology
B.S., M.S., California State University, Fresno

Porteous, Scott (2001)
Biology
B.A., M.A., California State University, Fresno

Porteous-Gafford, Shirley (1992)
Associate Dean of Instruction,
Math, Science and Engineering
Division
B.S., M.A., California State University, Fresno

Preston-Smith, Julie (2002)
Counselor
B.A., University of California, Irvine
M.S., California State University, Long Beach

Quercia, Olga (1996)
Music
B.A., California State University, Fresno
M.M., Eastman School of Music

Quintana, Frank M. (1970)
Associate Dean of Instruction, Fine,
Performing and Communication Arts
Division
A.A., Fresno City College
B.A., M.A., California State University, Fresno

Racki, David (1985)
Librarian
B.A., Southern Connecticut State University
M.L.S., Western Michigan University

Ramirez, Graciela (1996)
Counselor
B.A., M.A., California State University, Fresno

Ramon, Frank (1972)
Director, Financial Aid
B.A., Western Washington University
M.S., University of LaVerne

Ramos, Loretta (1994)
Speech
B.A., University of Southern California
M.A., California State University, Fresno
J.D., San Joaquin College of Law

Rawate, Prabhu (1990)
Chemistry
B.S., M.S., University of Allahabad, India

Ph.D., University of Nebraska
Reid, Birt (1973)
Counselor
B.A., M.A., California State University, Fresno

Reznik, Zwi (1990)

## Mathematics

B.S., New York University
B.A., M.S., University of Colorado, Denver

Rhode, Robert (2001)
Biology
B.S., M.S., University of California, Davis

Richardson, Robert L. (1968)
Counselor
A.B., University of Maryland
M.A., Chico State College

Ph.D., Calif. School of Professional Psychology
Riddlesprigger, William B. (1976)
English
A.A., Fresno City College
B.A., California State University, Fresno
M.A., California State University, Sacramento

Riley, David (2001)
Electrical Systems Technology
B.S., M.S., California State University, Fresno

Roach, Darlene (1985)
Counselor
B.A., M.A., California State University, Fresno

Roberts, Michael D. (1992)
Associate Dean of Instruction,
Humanities Division
A.A., San Joaquin Delta Junior College
B.A., University of California, Davis
M.A., California State University, Fresno M.A., Fresno Pacific College

Rooks, Clay (1999)
English
B.S., Iowa State University
M.A., California State University, Fresno

Rutishauser, Brian (1999)
History
B.A., University of Dayton
M.A., Ph.D., Ohio State University

Ryan, Judy L. (1988)
English
B.A., California State University, Sacramento
M.A., California State University, Fresno

Saddler, James (1990)
English
B.A., M.A., University of California, Los

Angeles
Sall, Gerald (1977)
Counselor (CTC)
B.S.Ed., Ohio University
M.S., Wright State University, Ohio

Santos, Geraldine (1999)
Counselor
B.A., M.A., California State University, Fresno

Santos, Richard (1994)
Linguistics/ESL
B.A., M.A., California State University, Fresno

Sause, James (2000)
Information Systems
B.S., California State University, Fresno
M.B.A., National University

Sausen, Barbara (1981)
Mathematics
B.S., Macalester College
M.A., University of Minnesota

Scheid, Anne F. (1991)
Art
B.A., Edgecliff College
M.F.A., University of Cincinnati

Scheidt, Richard (1997)
Physical Education
B.S., San Francisco State University
M.A., California State University, Fresno

Schneider, Dennis (1981)
Business Administration/Marketing
B.S., California State University, Fresno
M.S., New York University

Schuller, Michael (1990)
Psychology
B.A., Northwestern University
M.A., University of Chicago

Ph.D., Union Institute

Scott, Ronald A. (1990)
Physical Education
B.S., California State University, San Jose
M.A., California State University, Fresno

Scott, Rueben A. (1971)
English, Philosophy
B.A., Fresno Pacific College
MDiv., Golden Gate Seminary

Seely, Irene 0. (1989)

## Biology

B.A., California State University, Fresno
M.A., University of California, Berkeley

Shapazian, Debra P. (1990)
Theatre Arts
B.A., M.A., California State University, Fresno

Shepard, James H. (1987)
Art
B.A., M.A., California State University, Fresno

Shultz, Joseph (1996)
Radiologic Technology
B.S., California State University, Fresno
M.Ed., National University

Sihota, Gurdeep (2000)
Director, College Activities
A.A., Fresno City College
B.A., California State University, Fresno M.O.B., California School of Professional Psychology
Simba, Ceroasetta (1997)
English
B.A., University of Southern Colorado
M.A., California State University, Fresno

Sine, Cynthia (2001)
Coordinator, Planning, Faculty
Development, Program Review
A.A., Moorpark College
B.A., M.A., California State University, Fresno

Siroky, Allen (1999)
History
B.A., Rocky Mountain College
M.A., Trinity College

Ph.D., City University of New York
Slaton, Rebecca L. (1991)
Psychology
B.A., California State University, Fresno M.S., Ph.D., University of California, Santa Cruz
Smith, Bonnie (1996)
Information Systems
B.S., San Francisco State University
M.S.A., California State University, Fresno

Smith, Ernest (1996)
Interim Associate Dean of Students, Counseling and Guidance; and Associate Dean of Students, Career and Resource Development
B.S., M.E., Oregon State University

Ed.D., Portland State University
Solberg, Eric (1999)
Physical Education
B.S., California State University, Fresno
M.S., U.S. Sports Academy

Solwazi, Kehinde (1970)
Art, African-American Studies
B.F.A., Art Institute and University of Chicago
M.A., California State University, San Diego

Sousa, Daniel J. (1992)
Electrical Systems Technology
A.A., Fresno City College
B.S., M.S., California State University, Fresno

Souza, Theresa E. (1990)
Nursing
A.A., Chabot Junior college
B.S.N., California State University, Chico
M.S.N., California State University, Fresno

Spear, Gricelda (2000)
Counselor, Disabled Students
Program \& Services
B.A., California State University, Northridge
M.S., California State University, Fresno

Spolsdoff, John (2000)
Director, Student Success \& Honors
B.A., M.A., California State University, Fresno

Ed.D., Nova Southeastern University
Stanton, Ray (1990)
Mathematics
B.S., University of the Pacific
M.A., Fresno Pacific College

Ed.D., University of Southern California
Stark, Scott (2000)
Physical Education
B.A., Stanford University
M.S., St. Thomas University

Stephenson, Wendell (1999)
Philosophy
B.A., Westmont College
M.A., Ph.D., University of California, Santa Barbara
Stewart, Richard (2001)
Biology
A.A., College of the Sequoias
B.A., M.A., California State University, Fresno

Stone, Carol J. (1990)
Home Economics
B.A., M.S., California State University, Fresno

Stovall, Tina (1999)
Business and Technology
B.A., California State University, Stanislaus
M.A., National University

Stricker, Terrelyn Rhymes (1984)
Accounting, Decision Science
B.S., M.B.A., California State University, Fresno

Sullivan, Kristin (1999)
Child Development
B.S., M.A., California State University, Fresno

Susnick, Ruthford (1999)
Automotive Mechanics (CTC)
B.S., Indiana State University

Syvertsen, William A. (1990)
Business Administration/Marketing
A.S., Loma Linda University
B.A., California State University, Fresno
M.S., University of San Francisco

Taylor, Mary A. (1975)
Nursing
B.S.N., Fresno State College
M.S.N., California State University, Fresno

Temple, Donald L. (1990)
Decision Science, Information Systems
A.A., San Joaquin Delta College
B.A., M.B.A., California State University, Fresno
Teng, Loretta (1999)
Title V Coordinator
B.A., University of Taiwan
M.Ed., Widner University

Ph.D., Colorado State University
Thiessen, Jolene (2001)
Business \& Technology
B.A., Tabor College
M.B.A., National University

Thomas, Pamella (1984)
English
B.S., M.A., California State University, Fresno

Thurston, Gerald (2003)
Speech
B.A., California State University, Fresno

Tognazzini, Eugene A. (1984)
Mathematics
B.A., M.A., California State University, Fresno

Tuttrup, Richard J. (2000)
Business and Technology
B.A., California State University, Long Beach
M.B.A., California State University, Fresno

Valencia, Richard A. (1976)
Chicano-Latino Studies, Sociology
A.B., University of California, Santa Barbara
M.A., San Jose State University

Van Cleve, Tami (1990)
Child Development
B.S., California State University, Fresno
M.S., Nova University, Florida

Ed.D., Nova Southeastern University, Florida
Van Vleet, Patricia N. (1991)
Linguistics/ESL
B.A., M.A., California State University, Fresno

Vidinoff, John M. (2003)
Mathematics
B.A., California State University, Fresno
M.A., Fresno Pacific University

Walberg, Vance (2002)
Physical Education
B.A., California State University, Bakersfield
M.A., St. Mary's College

Walsh, James H. (1971)
Sociology
B.A., M.A., San Jose State College

Walzberg, Laura Ann (1985) Nursing
B.S.N., M.S.N., California State University, Fresno
Waters, Rosemary (1972) Biology
B.A., M.A., California State University, Fresno

Watson, Donald G. (1968)
Counselor
A.B., California State University, Fresno
M.A., San Fernando Valley State College

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.F.A., Southern 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

Williams, Elizabeth (2000)
Librarian
B.A., University of Houston, Texas
M.L.S., Kent State University, Ohio

Williams, Rhonda (1999)
Physical Education
B.A., Fresno Pacific
M.A., California State University, Fresno

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

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
A.A., 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
Bell, Edward 1979-1986 Auto Mechanics
Bengel, Earl
1968-1997
Engineering
Bingham, Isabell H. 1970-1982
Home Economics
Blackburn, Norma D. 1961-1979 Legal Secretaryship
Boucher, Richard 1964-1996 Electronic Technology
Bourdet, Malcolm L. 1957-1990 Physical Education
Brown, Martin D. 1974-1990 Associate Dean of Instruction, Health Arts and Sciences

Brown, Richard S.
1964-1986
Geology
Bruns, Paul M.
1958-1990
Chemistry
Byrd, Ronald F. 1968-2001
Librarian

Castine, John
1955-1984
English
Cates, Helen
1958-1978
English
Chow, Richard
1968-1991
Reprographics, Industrial Education
Christian, Peter C.
1958-1981
English
Cleland, Richard L.
1959-1996
College Business Manager
Coffman, Charles M. 1948-1972
Automotive Mechanics, Industrial Mathematics,
Human Relations
Cornwell, Gerald D.
1961-1990
Business
Cramer, Ray C. 1956-1995
Associate Dean of Instruction, Mathematics,
Science and Engineering Division
Curry, Ruth
1981-1998
Philosophy, English, Humanities
Davy, Thelma L. 1965-1973
English
Day, William H.
1964-1990
Chemistry

| DeKoning, Richard M. 1958-1982 <br> Drafting, Mathematics, Architecture, Industrial Education | Elgorriaga, Carmen 1970-1994 English, Spanish <br> Ellish, Arthur D. | Handley, Richard 1955-1980 Associate Dean of Instruction, Occupational Education |
| :---: | :---: | :---: |
| DePry, Ronald N. 1970-1993 Biology | 1973-1999 <br> Dean of Instruction <br> Estrada, Gonzolo | Hanson, Richard A. 1965-2003 Psychology |
| Dickie, David R. <br> 1965-1996 <br> Drafting, Industrial Education | 1965-1984 <br> English <br> Estrada, Joan E. | Hanson, William F. 1946-1978 <br> Director, <br> Vocational Training Center |
| Discont, Conrad M. 1963-1994 English, Humanities, Speech | 1964-1989 <br> Accounting <br> Farrington, Gerald | Haroutunian, Vahack 1971-1996 Mathematics |
| Dose, Kenneth D. <br> 1971-1999 <br> Physical Education | 1970-2003 <br> History, Political Science <br> Ferguson, Phillip <br> 1972-1982 | Hendrickson, David H. 1958-1984 Geography, History |
| 1981-1996 <br> Industrial Education, Construction, Mathematics | Mathematics <br> Fischer, Laurene J. 1965-1995 | Hendry, Harold T. 1966-1984 <br> Business Administration |
| Dougherty, Sara 1955-1981 Physical Education | Business Administration, Information Systems | Hibler, Edward B. 1961-1978 Psychology |
| Doyland, Russell A. 1961-1983 Accounting | 1965-1991 <br> Health Education, Track <br> Gaither, Loren F. | Hill, Jack 1956-1980 Marketing, Advertising |
| Draper, C. Dean 1960-1987 Art | 1964-1996 <br> Mathematics <br> Gaona, Venancio Garcia | Hiroyasu, Shaw 1975-1996 Automotive Mechanics, Industrial Education |
| Drummond, Harold G. 1970-1984 <br> Accounting | 1969-1999 <br> Spanish <br> Gibbs, Richard R. | Hoard, Martha L. 1964-1975 <br> Director Registered Nursing |
| Easton, Mary Alice 1966-1984 <br> Counselor | 1966-1994 <br> Economics, Psychology <br> Gonzalez, Carlos | Holstein, George C. 1955-1966 <br> Dean of Admissions \& Records |
| Eckenrod, Gervase A. 1955-1984 <br> Associate Dean of Instruction, Business Division | 1970-1999 Counselor Green, M. Fred 1962-1984 | Jeanis, Dorothy I. <br> 1969-1995 <br> Business Administration, <br> Management |
| Eckenrod, Sherian H. 1979-2003 <br> Associate Dean of Instruction, Business Division | Engineering <br> Grover, Stanford C. <br> 1966-1977 <br> Counselor | Johnston, H. Bruce 1966-1996 <br> Biology |
| Edman, Leland M. 1975-1991 Administration of Justice | Gunn, Donald L. <br> 1971-1992 <br> Theatre Arts, Speech | Keen, Derl W. 1975-2001 Child Development |
| Eischen, Clifford 1964-1998 <br> Business Administration, Management | Hald, Kenneth 1949-1972 <br> Biological Sciences | Kimura, Robert H. 1963-1984 <br> Chemistry |
| Eisner, Frances D. 1966-1978 Vocational Nursing | Hallstone, Kenneth 1968-2002 Psychology | King, Charles G. 1958-1990 Electronic Technology, Industrial Education |

## 304 College Personnel

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
Martin, Lawrence 1957-1981
Accounting,
Native American Studies
Martin, Merle
1950-1980
Dean of Students
Maruko, Eiji
1976-1997
Music
Mattox, Jack V.
1966-2001
Health Science
McCarthy, John R. 1951-1977
Health Education
McCline, Robin G.
1966-1992 Building Technology, Architectural Drafting
McCormack, Ethel 1930-1961
Secretarial Science, Dean, Business Division

McCully, Clyde C. 1967-1986
President
McFarland, Mary H. 1965-1989
English
McHenry, James A. 1965-2001
Biology
Meyer, Kent R.
1962-1987
Accounting
Miller, Mary E. 1960-1984 Secretarial Science

## Moller, Richard T.

1968-1990
Mathematics
Moore, Bessie M.
1971-1984
Vocational Nursing
Moore, Joseph Jr. 1966-1999
History, Political Science
Moorehouse, Richard L.
1974-1993
Director,
Dental Hygiene Program
Moran, Charles L. 1959-1989
Botany, Biology
Moranda, Theodore N. 1965-1989 History
Morgan, Carl H. 1955-1973
Physics, Mathematics
Morris, Bruce L. 1961-1983
Education, Mathematics
Munshower, Donald 1984-2003
Counselor
Musick, William D. 1965-1999
Physical Education
Neal, William A. 1961-1990
Mathematics
Nelson, Carl C. 1966-1994
Biology
Neuman, Darlene H. 1962-2000 Business \& Technology

Newcomb, Joan T. 1971-2001
Sociology, Child Development
Nielsen, Robert 1961-2001
Music
Ogden, Gordon L. 1975-1994
Director, Health Sciences
Okkerse, Victor J. 1959-1984 Secretarial Science

| Osborne, Leon 1959-1995 Art | Ritter, James J. 1984-2002 <br> Maintenance Mechanic (CTC) | Seaberg, William 1980-1998 <br> Associate Dean of |
| :---: | :---: | :---: |
| Owens, Kenneth B. | Rios, Cruz F. | Instruction, Learning Resources |
| 1963-1999 | 1976-1986 | Shine, G. Dennis Jr. |
| Art | Automotive Mechanics | 1968-1993 |
| Pauls, Albert N. 1963-1990 | Rohrer, Martha J. 1976-1981 | Economics, Business Administration |
| Secretarial Science | Home Economics | Shirley, W. Delton |
| Paulson, Richard S. 1955-1984 | Rose, Bronwen Wendy 1984-2003 | 1968-2001 <br> Biology |
| Speech | Native American Studies | Shriner, E. Jane |
| Paz, Isias E. 1971-1996 | Ross, James Edward 1971-2002 | 1963-1984 <br> Physical Education |
| Spanish, German | Mathematics | Slaughter, Clare L. |
| Peart, Gilbert M. 1958-1977 | Rowe, Andrew F. 1962-1990 | 1955-1984 <br> Physical Education |
| Marketing | Mathematics | Smith, Bernice V. |
| Perkins, Alvan E. 1964-1990 | Rumley, A. William 1958-1984 | 1972-1978 <br> Librarian |
| Counselor | History | Smith, Dorothy E. |
| Peterson, John R. 1965-1999 | Ruston, James R. 1967-1995 | 1965-1978 <br> Nursing |
| Engineering, Physics | English, Speech | Smith, Shannon |
| Piper, James K. 1965-1999 English, Film | Ryska, John W. 1965-1982 Counselor | 1958-1980 <br> Flight Science, Industrial Education |
| $\begin{aligned} & \text { Pool, June E.V. } \\ & \text { 1956-1984 } \\ & \text { Vocational Nursing } \end{aligned}$ | Sabbatini, LeRoy A. 1976-1999 <br> Automotive Collision Repair | Soderstrom, Paul 1948-1965 Business |
| Porter, Ralph W. 1971-2003 Biology | Sadler, Harold D. 1974-1993 <br> Business Administration | Sorensen, Royal 1976-1978 Microbiology |
| Putnam, Marlene S. <br> 1984-2001 <br> Business \& Technology | Safer, Joseph 1963-1985 Data Processing | Sosa, Luis R. <br> 1977-1993 <br> Sociology, Human Services |
| Quinn, Charles T. <br> 1970-2003 <br> Theatre Arts, Speech | Sakata, Kenneth <br> 1981-2003 <br> Cabinetmaking Technology | Spencer, Lowell <br> 1948-1978 <br> Music |
| Rail, Lester DeWayne 1971-2000 Director, Arts, Honors \& Student Success | Salrin, Ralph E. 1961-1986 Accounting | Stanley, Vance 1972-1999 Physical Education |
| Ramay, Morris W. 1972-2000 <br> Respiratory Care | Sandau, Richard R. 1959-1983 <br> English | Stark, Charles M. 1966-1990 <br> Physical Education |
| Rash, Lucille 1970-2003 Business \& Technology | Scambray, Terry A. 1967-2001 English | Statham, Yolanda A. 1964-1984 <br> English |
| Reynolds, Jr., William A. 1957-1978 <br> French | $\begin{aligned} & \text { Scott, William F. } \\ & \text { 1967-1984 } \\ & \text { Geography } \end{aligned}$ | 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 (VTC)
Templer, William F.
1975-1999
Physical Geography, Earth Science
Terry, Blair
1974-2001
Accounting
Toomasian, John
1961-1995
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
Wall, Kenneth G. 1979-2002
Construction
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, James
1979-1990
Welding, Industrial Education
Woodman, Joseph B. 1948-1976 Auto Mechanics

Woodruff, Jr., 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
Wrzalinski, Eugene S. 1984-2003 Environmental Technology
Young, Nain T. 1962-1984
Registered Nursing
Zepeda-Esparza, Josephine 1969-1995
English, Spanish

## In Memoriam

Jonell Beal English, Speech

Arthur S. DeManty
General Business
Alden K. Edgar
Secretarial Science
Keith M. Emmert
Photography, Mathematics

Charles W. Higginbotham
Accounting, Business
Administration, Management
Constance "Connie" Jorgensen Adminstration Secretary I

Dorothy J. Naman
Biology
Albert C. Odahl Secretarial Science

Robert J. Shaver
English
Gene Stephens
Physical Education
Bonnie N. Trask History

Joseph C. Young
Business Administration, Management

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Withdrawal (W)


[^0]:    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
    *Alternative qualifications: an AS degree in Child Development which includes 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 37B; Child Development 18A or 18B, Child Development 7)

    ## Family Child Care

    A family 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.

[^1]:    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.

[^2]:    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.

[^3]:    HMONG SEE FOREIGN LANGUAGES

[^4]:    51 ADAPTED AQUATICS
    1 unit, 2 lab hours, (Repeats = 3)
    PREREQUISITE: None.
    Designed for students with disabilities. Maintenance and/or development of basic physical/mental skills, knowledge, and attitude for satisfactory

