## Fresno City College 2008-2010 Catalog



## A Public California Community College

## COLLEGE STATEMENT

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 2008 semester and ends with the Summer 2010 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.

Reference copies of the catalog are available in the Library, Counseling Center, Admissions and Records Office, online, and in the offices of the 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.

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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 109 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 is a comprehensive community college offering innovative instructional programs in anticipation of and responsive to the life-long 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.

## Fresno City College Vision Statement

Fresno City College-a premier learning community whose students and graduates are among the best prepared citizens to meet the challenges of an increasingly complex global environment.

## Fresno City College Core Values

As a learner-centered institution, Fresno City College values an educational and cultural environment which promotes:

Success-the college community encourages and motivates students, faculty, and staff to identify and achieve their individual goals by providing quality instruction, programs, services, and processes.

Participation-the college community encourages positive participation by eliminating real or perceived risks of involvement and developing avenues of greater community participation.

Diversity-the college community encourages and respects individual differences.

Collegiality-the college community is committed to working as a team in an open, civil, collegial, and safe environment.

Innovation-the college community supports an environment in which individuals are free to explore new or alternative avenues toward advancing the college's mission.

Stewardship-the college community is committed to the preservation, conservation, and utilization of its resources.

## Fresno City College Ethics Statement

The principles and values of the Fresno City College Code of Ethics and Excellence guide the faculty, students, and staff in the achievement of a profound appreciation of and respect for the dignity and worth of each member of our community of learners in responding to the trust conferred on the college by the public. We are guided by the standards and principles established by our respective professional associations and organizations in our effort to create an ethical college community.

Fairness: In our relationships with each other, we will be fair and just in our decisions and actions by carefully weighing the circumstances in an equitable manner.

Civility: We adhere to standard conventions of civility and regard of others. We achieve an open working and learning environment when each community member feels secure enough to participate in the free exchange of ideas. We ensure an honest and supportive climate which serves the interests of the institution and protects the well-being of all individuals.
Integrity: In order to support excellence in learning, we will act in the college's best interests. As a community dedicated to providing education, we demonstrate professional integrity and exemplary behavior in all that we do.

Respect: We demonstrate a high regard for the rights, diverse opinions, and life styles of all community members. It is our responsibility to establish a climate of mutual respect to protect the rights and freedoms of others.

Trust: The development of trust relies on our ability to treat others equitably in a non-exploitive manner.

Adapted from Humber College Ethics Statement.


Founded in 1910, Fresno City College is a tbriving, vibrant college campus with an enrollment of more than 23,000 students.

## Fresno City College Institutional Student Learning Outcomes

## Communication

Students will demonstrate effective communication and comprehension skills.

Comprehend, analyze and respond appropriately to oral, written and visual information.
Effectively communicate/express information through speaking, writing and other appropriate modes of communication/expression.

## Critical Thinking and Information Competency

Students will demonstrate critical thinking skills in problem solving across the disciplines and in daily life.

Identify vital questions, problems, or issues and evaluate the reasonableness of a solution.
Analyze, compose, and assess the validity of an argument.
Analyze multiple representations of quantitative information, including graphical, formulaic, numerical, and verbal.
Select and evaluate the accuracy, credibility, and relevance of information sources.

## Community/Global Awareness and Responsibility

Students will demonstrate knowledge of significant social, cultural, environmental and aesthetic perspectives.

Identify the social and ethical responsibilities of the individual in society.
Demonstrate commitment to active citizenship.

## Personal, Academic, and Career Development

Students will assess their own knowledge, skills, and abilities, set personal, educational, and career goals, work independently and in group settings, and identify lifestyle choices that promote self reliance, financial literacy, and physical, mental and social health.

Take personal responsibility for identifying academic and psycho-social needs, determining resources, and accessing appropriate services.
Develop, implement, and evaluate progress towards achieving personal, academic, career goals, and career resilience.

## History of Fresno City College

Fresno City College was established in 1910, becoming California's first community college and 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 " 0 " Street in downtown Fresno. In 1921, Fresno Junior College combined with the then Fresno Normal School, later Fresno State College and currently California State University, Fresno. The junior college operated 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, and by 1956 Fresno Junior College had moved to its current location on University Avenue. The name was changed to Fresno City College on May 11, 1958.

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.

## The District

Fresno City College is one of two colleges in the State Center Community College District. The district encompasses a 5,500 square mile area and 17 unified and high school districts.

The State Center Community College District office is located at 1525 E. Weldon, Fresno, CA 93704 . The district is comprised of Fresno City College, Manchester Educational Center, Career and Technology Center and The Training Institute, Reedley College, Clovis Center, Madera Center, Oakhurst Center, and Willow International Center. Each campus offers certain programs/courses which are unique and are not offered at the other campuses.

## 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 'transfer- prepared' during a fivesemester 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 district Police Department.

## ACADEMIC CALENDAR

## Summer Semester 2008 <br> Fresno City College will conduct four sessions: (subject to change) <br> - 4-week summer session <br> - 6-week summer session <br> - 8 -week summer session <br> - 10-week summer session <br> May 26 <br> $\qquad$ Memorial Day Holiday <br> (Campus Closed) <br> May 27 <br> $\qquad$ Instruction begins for 4- and 10-week classes June 9............Instruction begins for 8-week classes June 20 <br> $\qquad$ Final examinations and end of 4-week classes June 23..........Instruction begins for 6-week classes July 4 <br> $\qquad$ Independence Day Holiday <br> (Campus Closed) <br> August 1 <br> $\qquad$ Final examinations; end of 6-, 8-, and 10 -week classes August 1 .............................Last day for degree and certificate of achievement candidates to file application for August 2008 completion date

## Fall Semester 2008

August 18 $\qquad$ . Instruction begins
September 1 $\qquad$ Labor Day Holiday (Campus Closed)
October 17 .......... Last day to withdraw from college or to be dropped from 18-week classes
November 11 $\qquad$ . Veterans Day Holiday (No Classes, Offices Open)
November 27-28 ..........Thanksgiving Day Holidays
(Campus Closed)
December 15-19 $\qquad$ Final examinations December 19 $\qquad$ End of Fall Semester 2008

December 19 . $\qquad$ Last day for degree and certificate of achievement candidates to file application for December 2008 completion date
December 22-January 7 $\qquad$ Winter recess

## Spring Semester 2009

January 12................................Instruction begins
January 19.................. Martin Luther King, Jr. Day Holiday (Campus Closed)
February 13 $\qquad$ Lincoln's Day Holiday (Campus Closed)
February 16 $\qquad$ Washington's Day Holiday (Campus Closed)
March 13 ........... Last day to withdraw from college or to be dropped from 18-week classes
March 20 $\qquad$ . Last day for degree and certificate of achievement candidates to file application for May 2009 completion date
April 6-10 $\qquad$ Spring recess
(Classes reconvene April 13)
May 18-22 $\qquad$ Final examinations
May 22 ......................End of Spring Semester 2009
May 22 $\qquad$ Graduation exercises

## Summer Semester 2009

Fresno City College will conduct four sessions:
(subject to change)

- 4-week summer session
- 6 -week summer session
- 8 -week summer session
- 10 -week summer session

May 25 $\qquad$ Memorial Day Holiday (Campus Closed)
June 1 $\qquad$ Instruction begins for 4 - and 10-week classes

June 15..........Instruction begins for 8-week classes June 26..................Final examinations and end of 4-week classes June 29..........Instruction begins for 6-week classes July 3 $\qquad$ Independence Day Holiday (Campus Closed)
August 7 $\qquad$ Final examinations; end of 6-, 8-, and 10 -week classes
August 7 $\qquad$ .Last day for degree and certificate of achievement candidates to file application for August 2009 completion date

## Fall Semester 2009

August 17 $\qquad$ Instruction begins
September 17 $\qquad$ Labor Day Holiday (Campus Closed)
October 16 $\qquad$ . 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 26-27 .......... Thanksgiving Day Holidays (Campus Closed)
December 18. $\qquad$ .Last day for degree and certificate of achievement candidates to file application for December 2009 completion date December 14-18 $\qquad$ Final examinations
December 18 . $\qquad$ .End of Fall Semester 2009
December 21-January 6 $\qquad$ Winter recess

## Spring Semester 2010

January 1 $\qquad$ Instruction begins
January 18 $\qquad$ Martin Luther King, Jr. Day Holiday (Campus Closed)
February 12 ..........................Lincoln's Day Holiday (Campus Closed)
February 15 $\qquad$ Washington's Day Holiday (Campus Closed)
March 12 ........... Last day to withdraw from college or to be dropped from 18-week classes
March 19 $\qquad$ .Last day for degree and certificate of achievement candidates to file application for May 2010 completion date
March 29-April 2 $\qquad$ . Spring recess
(Classes reconvene April 5)
May 17-21 $\qquad$ Final examinations
May 21 $\qquad$ .End of Spring Semester 2010
May 21 $\qquad$ Graduation exercises


Fresno City College is centrally located on 103 acres with several bistoric buildings in a picturesque setting.

## Summer Semester 2010

Fresno City College will conduct four sessions: (subject to change)

- 4-week summer session
- 6 -week summer session
- 8 -week summer session
- 10 -week summer session

May 26 $\qquad$ Memorial Day Holiday (Campus Closed)
June 1. $\qquad$ .Instruction begins for 4 - and 10-week classes June 14..........Instruction begins for 8 -week classes June 25 . $\qquad$ .Final examinations and end of 4-week classes June 28..........Instruction begins for 6-week classes July 5 $\qquad$ Independence Day Holiday (Campus Closed)
August 6 ............Final examinations; end of 6-, 8-, and 10 -week classes
August 6 $\qquad$ ..Last day for degree and certificate of achievement candidates to file application for August 2010 completion date

## ADMISSION AND REGISTRATION

## 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.

Students should complete all plans for entrance as early as possible and be familiar with the following: (1) general requirements of the college, (2) special requirements in the major field of study, (3) the general requirements of the college or university they may wish to attend in the future, and (4) the most desirable electives.

## General Admission

A person who is at least 18 years old, with a high school diploma, or the equivalent (such as the California High School Proficiency Examination or GED) is eligible for admission to Fresno City College.

## Provisional Admission

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.

## Readmission

Former students of Fresno City College returning after an absence of two 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.

## Transfer Admission

Students who have previously attended another college and are in good scholastic standing are eligible to enroll at Fresno City College. Records for transfer students are evaluated with regard to the scholastic status system in use at Fresno City College at the time of enrollment. It is important to note that transcripts received with "work in progress" are not considered as complete.

## International Admission

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: May 1 for fall semester and October 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

## Admission and Registration

approved by special action. When an international student arrives at Fresno City College, the student should report first to the International Students Office.

At the time of registration, each student must have evidence of health insurance and have complied with the district policy regarding tuberculosis testing and current measles immunization. It is also mandatory that each student successfully complete an English course during each semester at Fresno City College until graduation requirements have been met for program completion or for transfer purposes and that the student maintain 12 units or more each semester.

Health insurance payments must be initiated at the International Students Office, Student Services Building, lower level.

## Summary of Admission Requirements

Any student who intends to obtain a degree or certificate of achievement at Fresno City College or plans to transfer to a four-year college or university shall be required to:

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 17.

## Application

Fresno City College is one of multiple colleges and centers within the State Center Community College District (SCCCD). Students need only submit one application for admission to any of SCCCD's colleges/centers.
Apply on-line at www.fresnocitycollege.edu for greatest convenience. Applications are also available from the Admissions Office at any college or center within SCCCD, or from the counseling office at your local high school.

## Who Needs to Apply?

If you have never attended a college or center within SCCCD (new or transfer student) or have been away for two or more semesters (returning former student), you must complete an application for admission. Students currently enrolled within SCCCD do not need to reapply for admission for the subsequent semester. Currently enrolled high school students must reapply each semester.

## Residency

By law, every student must file a statement declaring his/her residence status. The form for such a statement is included in the admission process.
A maintenance allowance is available for students attending Fresno City College whose permanent residence is in a California nondistrict territory (district without a community college) and who live more than 60 miles from the "nearest community college attendance center." For further information, contact the Residence Office, room 111, Student Services Building, lower level. (California Education Code 76160 Rev. 83).

It is recommended that all students whose legal residence is outside of the State Center Community College District have a health and accident insurance policy while attending Fresno City College. If the student does not have health and accident insurance, he/she may sign up and pay for such a policy in the office of the Vice President of Students.

## In-State

Students who have established residency in California for at least one year and one day prior to the beginning of the term in which they enroll.

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## Out-of-State/International

Students who have not resided in California for at least one year and one day prior to the beginning of the term in which they enroll.

## Exemption from Nonresident Tuition (AB-540)

Any student, other than a nonimmigrant alien, who meets all of the following requirements, shall be exempt from paying nonresident tuition at all public colleges and universities in California:

- Requirements:
o The student must have attended a high school (public or private) in California for three or more years;
o The student must have graduated from a California high school or attained the equivalent prior to the start of the term (for example, passing the GED or California High School Proficiency Exam or receive a completion certificate);
o An alien student who is without lawful immigration status must file an affidavit with the college or university stating that he or she has filed an application to legalize his or her immigration status, or will file an application as soon as he or she is eligible to do so.
- Students who are non-immigrants [for example, those who hold F (student) visas, B (visitor) visas, etc.] are not eligible for this exemption.
- The student must file an exemption request including a signed affidavit with the college that indicates the student has met all applicable conditions described above. Student information obtained in this process is strictly confidential unless disclosure is required under law.
- Students eligible for this exemption who are transferring to another California public college or university must submit a new request (and documentation if required) to each college under consideration.
- Nonresident students meeting the criteria will be exempted from the payment of nonresident tuition, but they will not be classified as California residents. They continue to be "nonresidents."
- AB540 does not provide student financial aid eligibility for undocumented alien students. These students remain ineligible for state and federal financial aid.


## Matriculation

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

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

With the State Matriculation Plan, Fresno City College provides:

- An admission process
- An assessment of basic educational skills and career goals
- Orientation to college programs, services and procedures
- Counseling to develop a Student Educational Plan
- Counseling on student progress with referral to support services as necessary
As their part of the Matriculation Plan, students agree to:
- Complete the placement test and assessment process
- Declare a specific educational objective within a reasonable period of enrollment
- Attend an orientation session
- Attend counseling sessions during the first two semesters of college prior to registration to develop and refine a Student Educational Plan


## Exemptions

Students may be exempt from various matriculation components. See a counselor to review exemption criteria. Any student may seek a waiver from the matriculation process. Visit the Counseling Center for more information.

## 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 dean of students for counseling and guidance, and the student will discuss the student's request and resolve it during this meeting. In

## Admission and Registration

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 best interest and would be beneficial in helping the student to select appropriate classes.

## Matriculation Checklist

$\square$ APPLICATION/ADMISSION
I have completed and submitted a Fresno City College application
$\square \quad$ FINANCIAL AID (optional)
I have completed and submitted the FAFSA
(Free Application for Federal Student Aid).

## $\square$ ORIENTATION

I have attended, or participated in, one of the orientation options offered by Fresno City College.
$\square \quad$ ASSESSMENT (Placement Test)
I have completed all 3 parts of the assessment test.

- English Reading
- English Sentence Skills
- Mathematics (basic math,algebra, or college level math)
$\square \quad$ COUNSELING and ADVISEMENT
I have met with a counselor for class selection and advising
$\square \quad$ STUDENT EDUCATIONAL PLAN (SEP)
I have met with a counselor to develop a semester by semester student education plan based on my educational and individual circumstances.
$\square \quad$ REGISTRATION
I have registered in classes through one of the registration processes: Reg-to-go, WebAdvisor, touchtone or counter registration.

FOLLOW-UP
I have scheduled a follow-up appointment with a counselor to discuss certificates, degrees, majors and develop, revise, or complete an SEP.

## 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.
The Family Education Rights and Privacy Act makes it illegal for the college to release a student's confidential educational records to anyone without express written permission of the student. If a student is unable to register at his/her appointed time, a substitute may be appointed provided the proper procedure is observed; contact Admissions and Records Office for the specific procedure to follow.

## Intra-District Transfer

Fresno City College students who plan to transfer to colleges or centers within the District for the ensuing semester will receive the same registration service and priority as currently enrolled 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 Vice President of Admissions and Records Office in the Student Services Building, 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.

## Advising

A counselor or education advisor is available to assist students with their educational endeavors each semester. Students may obtain counseling assistance by contacting the Counseling Center or online counseling is also available via the Fresno City College website at www. fresnocitycollege.edu.

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## 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 "monetary hold" being placed. Additionally, holds may be placed for academic or disciplinary reasons which will result in the student's inability to register for subsequent classes.

Students whose records are held for monetary reasons shall not be allowed to (1) register for subsequent classes; (2) send or receive transcripts; or (3) receive other documents 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 "monetary hold" will be removed.

## Priority Registration

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, Military/Veterans;


Student leaders play a vital role at Fresno City College representing the interests of students in both the Associated Student Government (ASG) and as student trustees for the State Center Community College District Board of Trustees.
2. Currently enrolled students based on a graduated combination of units completed and grades achieved within the State Center Community College District;
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.

## Waitlist Rules and Information

When you are unable to find an open section of a course you wish to take, you have the option of being placed on a "WAITLIST" for a specific section of the course. Please note that the following rules apply:

1. Students may add their name to any available "Waitlist" up to the last day of registration prior to the beginning of the term, PROVIDING they meet pre-requisites and/ or co-requisites of the course.
2. Students will be added to the "Waitlist" on a first-come first-served basis.
3. Students are not billed until moved from the "Waitlist" to the official roster.
4. Students cannot be placed on a "Waitlist" prior to their registration appointment date.
5. Students on the "Waitlist" will have first priority for any seats in a "full" class that may subsequently become available during the first $20 \%$ of the course PROVIDED that they attend each and every class meeting (for 18 week semester courses, this is the first 3 weeks of class).
6. "Waitlists" will be available only for current class sections that are "full" (that is, the class has reached its "maximum class size"). No "Waitlists" will be available for "canceled" class sections or class sections that are not yet "full."
7. Time conflicts between registered classes and "Waitlist" classes may result in being removed from "Waitlist" classes.
8. Students cannot be placed on a "Waitlist" for a section of a course when already enrolled in another section of that same course.
9. Students cannot be on more that one "Waitlist" for the same course.
10. The Admissions and Records office will regularly monitor all classes with existing "WAITLISTS" for student drops. When an open space on the roster becomes available, the first eligible student on the waitlist will be officially enrolled and notified either by letter or telephone of this action. Admissions \& Records will monitor waitlists up to the class start date.
11. On the first-date of class, instructors will determine the number of openings available. They will provide a "STUDENT ADD LABEL" to those students present in the order in which their name appears on the "WAITLIST" portion of their roster. It is the student's responsibility to officially enroll in the class within the defined time constraints.
12. After the "WAITLIST" for the class is exhausted, additional openings, if any, will be filled by the instructor, in accordance with existing policies.

## 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 at the Assessment Center.

A schedule of testing times and dates is established each month. For test dates, times, and location look online at: fresnocitycollege.edu/counseling/assessment or call the Assessment hotline at 442-8280.

Test scores are used for counseling purposes and to assist with correctly advising students on 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 a counselor can advise the student on the appropriate classes to take.

After a student takes the placement test, he/she can discuss the test results and the assessment survey with a counselor. If the student thinks 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 dean of counseling and guidance by completing the Prerequisite/Corequisite Challenge Petition (available from the Counseling Department 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 60 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.

No placement examination is required as a condition for admission to the college. However, see page 77 for information about placement in English and math classes.

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

1. Take the Strong Interest Inventory and the Myers-Briggs Type Indicator available in the Career Center, second floor, Student Services Building.
2. Sign up in the Career Center to use the DISCOVER system. Hall 2 of this career guidance system offers interest, ability, and values inventories.
3. Take the EUREKA Microskills. This assessment helps students identify their most satisfying skills and links them to possible future occupations.
4. See a counselor.
5. Take Counseling 48, Career Planning.
6. Take the placement test for Math and English. Contact the Assessment Center at 442-8280 for further information.

## Class Schedule Change

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.

## 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.

## Student Fees

## Enrollment Fee*

The state of California mandates an enrollment fee of $\$ 20$ per unit (with no cap) be charged to all students. Classes may be dropped if fees are not paid by due dates. Please see the Class Schedule for fee deadlines and payment options.

## Nonresident and International Tuition

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..................... \$204**
Nonresident Student Tuition....................... \$181**
Plus Enrollment Fee per unit ...................... \$20**
** 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.


The Culinary Arts program provides students with handson experience that trains them to acquire appropriate employment skills in food preparation.

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, room 108.

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.

## 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.

## Health Fee*

A state-mandated fee of $\$ 16$ per semester- $\$ 13$ 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 $\$ 8$.

## Parking Fee*

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. Students requiring handicap parking should contact the Disabled Students Programs and Services Office.

[^0]
## Admission and Registration

## Transcript Fee*

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. You may pay by money order, VISA, MasterCard or Discover Card. Cash is accepted at the Cashier's Window. Please do not mail cash with transcript request. Transcripts will not be provided if the student has a "hold" on their permanent file.

Normally, transcripts are available within five working days except during periods which involve holidays or at the end of each semester. When requesting transcripts by mail, address the request to the Admissions and Records Office. Transcripts from other institutions become a part of the student's permanent file and are not duplicated and forwarded with the Fresno City College transcript.

## Associated Student Body Fee*

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 college-sanctioned 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.

## 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 54801-54805, 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 used for student advocacy at the local, state, and national levels.

## Right to Request a Waiver

Students have the right to request a waiver of the mandatory student representation fee for religious, political, moral, or financial reasons. However, 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 College Business Office at Reedley College and the North Centers.
For more information, contact the Associated Student Government Office, 442-8275.

## Credit by Examination Fee*

Students are required to pay a fee in the amount of $\$ 10.00^{*}$ for the first unit plus $\$ 5.00^{*}$ for each additional unit for each course challenged. This fee is specific to the Credit by Examination charge. An additional \$20.00 per unit fee is required by State Law.
Those students otherwise required to pay non-resident fees will also be required to pay the non-resident unit fee for each unit of a course challenged in addition to the specific Credit by Examination fees noted in the above paragraph.

## Refund 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.
Refunds shall be initiated upon receipt of a written request to the Business Office. Requests may also be made online.
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

- Withdrawal during the first two weeks of the semester. $100 \%$ refund
- Withdrawal after the second week of the semester no refund

[^1]
## Summer/Short-Term Classes

State code defines the drop deadlines to qualify for fee refund/reversals of enrollment fees for short-term classes as on or before 10 percent of the duration of the class.

- A $100 \%$ refund is given upon withdrawal by the 10 percent point.
- No refund is given after withdrawal beyond the 10 percent point
*Number of actual $\quad 10 \%$ Point $\quad 100 \%$ refund if class meetings: (rounded down) withdrawal is on or before:

| 8 | $0.8=0$ | 1st day of class |
| :---: | :--- | :--- |
| 16 | $1.6=1$ | 1st day of class |
| 24 | $2.4=2$ | 2nd day of class |
| 38 | $3.8=3$ | 3rd day of class |

* Do not count holidays, weekends, or any other day the class is not scheduled to meet.


## 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.

## Fresno City

College strives to make students aware of the varied educational programs that are offered and to provide smooth access
to these
programs.

Examples:
Drop 3 units
Add 4 units
1 unit increase in charges
Drop 4 units
Add 3 units
1 unit less, however, this is considered an even exchange.

## 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.

## Refund of Associated Student Body Membership

A refund policy for Associated Student Body membership 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.


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 prestigious four-year colleges and universities.

## ACADEMIC REGULATIONS

## Units of Academic Credit

The standard quantity for measurement of college work is a unit. One unit generally equals one hour of classroom lecture per week plus two hours of study. Using this formula, a class that meets in lecture three times a week for one hour will be worth three units. This college operates on the semester system and all references to units of academic credit in this catalog 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.

## Full-Time Enrollment

The normal semester load is 15 units. Students enrolled in 12 or more units are considered full-time students. 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.


In the Applied Technology Division at FCC, students receive bands-on training in a variety of vocational and technical fields. These programs enable students to become job ready in the local workforce.

Permission to enroll in excess of 18 units is granted only when unusually high scholarship and urgent need prevail. Counselors can approve a student request to take 19 to 21 units. Students who wish to take 22 or more units may obtain a petition for this purpose in the Counseling Center.

The student who desires to be a candidate for graduation in two years must carry an average of 15 units per semester. The following classifications have been established:

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

Students who work are urged to be realistic in balancing the number of academic units undertaken in view of outside hours of work. Normally, each unit undertaken requires two hours of outside study for each hour of class lecture.

## 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).

## 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 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 Vice President 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 Vice President 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 Vice President of Students.
6. File the completed form in the office of the Vice President of Students.

## 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 $P$ are passing grades, satisfactory or better. $D$ is a passing but less than satisfactory grade. $F$ is a failing grade. $N P$ is a less than satisfactory or failing grade; it is not a passing grade. Units of credit are earned for all passing grades $(A, B, C, D$, and $P)$. Grade symbols are defined and grade points are earned for units of credit as follows:

| Evaluative Grade Symbols | Grade Points per Unit |
| :---: | :--- |
| A | Excellent ................................................ 4.0 |
| B | Good.......................................................... 3.0 |
| C | Satisfactory................................................. 2.0 |
| *D | Passing, less than satisfactory ................. 1.0 |


| F | Failing............................................. 0.0 |
| :---: | :---: |
| P | Pass ....................................................... 0.0 <br> (A passing grade, satisfactory or better) |
| NP | No Pass $\qquad$ . 0.0 (Not a passing grade, less than satisfactory or failing) |
| X $\text { * } T$ <br> satisfo <br> Math, <br> In ad <br> sidere <br> degre <br> Also, <br> ment <br> In <br> non-e <br> perm <br> credit <br> symbo <br> define | Completion of non-credit course. $\qquad$ . 0.0 <br> " " $D$ " grade is passing but is not considered ctory for meeting the graduation requirements in Reading, Writing, Speech, and Computer Literacy. dition, the "D" grade is passing but is not cond satisfactory for meeting many of the college , major, or course prerequisite requirements. he " $D$ " grade may not satisfy transfer requireto four-year institutions. <br> addition to the evaluative symbols listed above, valuative symbols may be assigned to students' nent records in specified conditions. No units of are earned for courses to which these non-evaluative ls are assigned. The non-evaluative symbols are as follows: |
| Non-e | aluative 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, whichever 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 $M W$ 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

IP 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.

## P/NP, Pass/No Pass

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

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

## 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, Records Counter. 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 58 and follow the six steps listed.

## Non-Credit Classes

Non-credit classes are classes in which the student receives neither units nor a grade; however, at the completion of the course the registrar will record on the transcript that such a course was completed.

Students will be governed by the same attendance policies and responsibilities as those students taking credit classes. (A student may not attend a class without enrolling.)
Note: Credit status is required for pursuit of Associate Degrees and Certificates of Achievement.

## 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 dean of the appropriate division.

## Earning Course and Unit Credit

In addition to earning credits in residence by attending classes, a student may also earn credits in the following ways:

## Advanced Placement Program Credit (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 Accepted FCC Course Granted
Fine, Performing, and Communication Arts Division

| Music | 3,4 or 5 | Music 12 or 13 | 3 |
| :--- | :--- | :--- | :--- |
| Music Theory | 3,4 or 5 | Music 1A | 3 |

## Humanities Division


(Literature part)
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 | Mathematics 5A | 5 |
| Calculus BC | 3,4 or 5 | Mathematics 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 Sciences Division

| American History | 3,4 or 5 | History 11-12 | 6 |
| :--- | ---: | :--- | :--- |
| European History | 3,4 or 5 | History 2 | 3 |
| Macroeconomics | 3,4, or 5 | Economics 1A | 3 |
| Microeconomics | 3,4, or 5 | Economics 1B | 3 |
| Psychology | 3,4, or 5 | Psychology 2 | 3 |

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/BS at a California State University must satisfy national, state and local
government requirements. The requirements at the University of California vary by campus.

## 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 earn 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.

## 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.

## Minimum Equivalent Units

 Exam Title Score FCC Course 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 | CIT 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 |

(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 |  |  |  |
| :--- | ---: | :--- | ---: |
| 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 Sciences Division

Afro-American History 50 AFRAM 1
American Government ** 50 None
American History I 50 HIST 113
American History II $\quad 50$ HIST $12 \quad 3$
Macroeconomics, Intro $\quad 50$ ECON 1A 3
Microeconomics, Intro 50 ECON 1B 3
Sociology $\quad 50$ SOC 1A 3
Psychology, General 50 PSY 2
Western Civilization I 50 HIST $1 \quad 3$
Western Civilization II 50 HIST 2

Soc Sci \& Hist (Gen.) 500 SOC SCI 3 (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).


## Cooperative Work Experience

Work experience and field work credit may be earned in some designated courses. Refer to page 80 for details.

## 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 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 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.

## Credit for Military Service

Upon successful completion of 12 units at Fresno City College with "C" grades or higher, a veteran/service person who has completed at least one (1) year of active duty may submit for possible Fresno City College credits appropriate documents and transcripts representing completion of basic military 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 Coast Guard 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. A person who has completed Marine

Corps basic training can receive three (3) semester hours in physical fitness/conditioning, two (2) semester hours in marksmanship, one (1) semester hours in outdoor skills; one (1) semester hour in personal health/hygiene, and one (1) semester hour in first aid.

Veterans, in addition to the basic units above, will receive non-transferable elective credit for in-service education, training, and/or their military occupational specialty (MOS). A maximum of 30 units, including basic training credit, will be allowed.

Active duty reservists who have completed basic training, but served less than one year, are allowed a total of four (4) semester hours of elective credit which includes two (2) semester hours of physical education. 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 or to the Veterans Certification Office.

## Individual Study

Individual Study 49 is a course that allows students to work individually with an instructor on a creative research project culminating with a topic paper, construction project, composition, etc. It allows exploration in greater depth than can be experienced in a regular course or may delve into subject matter not normally covered in a regular course.

A contract between the student and instructor must be developed, signed by the instructor, and approved by the dean.

Student must register for Individual Study 49 no later than the end of the third week of the semester.

## Travel-Study Credit

Credit granted by accredited colleges and universities for travel-study programs sponsored by these institutions will be accepted by Fresno City College. 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.

## Withdrawal/Dropping

## Dropping (Withdrawal from) a Class

In registering for a class, a student assumes the responsibility of meeting class standards of attendance and progress. This obligation remains until such time as the
course is officially dropped. Errors in registration should be rectified during the first week of instruction.

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 entry 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. An entry of " $W$ " will be recorded on the student's record beginning at the $20 \%$ point of a class and through the $50 \%$ point of a class. Excessive "Ws" will be used as factors in progress probation and dismissal procedures.

Students may drop him/her self by phone, the web, in person at any college or center Admissions \& Records office within the State Center District, or can request to be dropped 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.


## 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 phone, Web or in person 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 an entry 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 55024. )

Petitions for withdrawal due to extenuating circumstances are available from the Admissions and Records Office.

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 petition for withdrawal must be submitted no later than the end of the semester immediately following the semester in which the extenuating circumstance occurred.
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.

## Reports to Students

## Final Grade Report

Final grade reports are mailed only by request to the student's address on file with the college at www.fresnocitycollege.edu/forms-online. Grades are available on WebAdvisor (www.fresnocitycollege.edu) and click on the link or the TouchTone telephone system at 229-9833. Grade reports will be withheld for those students who fail to return school equipment or who have any unpaid accounts.

## Progress Report

For semester length courses a Progress Report will be issued during the 7th and 8th week for students who are not making satisfactory progress (D or F grades and poor attendance). The counseling department may notify students who are not making satisfactory progress.

## Certifications of Enrollment

Certifications of enrollment shall be requested in writing at www.fresnocitycollege.edu/forms-online. A minimum of five working days for the preparation of certifications is required. Certifications will not be provided if the student has a "monetary bold" on the permanent file.

The following definitions are used by Fresno City College when certifying the enrollment of our students to outside agencies such as the Veterans Administration, lending institutions, the Social Security Administration, insurance companies, and the California Student Aid Commission:

| Full-time | . 12 units or more |
| :---: | :---: |
| Three quarter-time | . 9 to 11.5 units |
| Half-time............. | . 6 to 8.5 units |
| Limited. | .fewer than 6 units |

## 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 grade point units. See Placement on Academic Probation.

## Academic 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 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 $N C / N P$, 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 $N C / N P$ 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 $N C / N P$ by re-enrolling in the courses. Students may repeat courses in this way for a total of three attempts. Students who wish to attempt courses more than three times in order to earn grades better than $D, F$, or $N C /$ $N P$ 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 $N C / N P$ 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 $D, F$, or $N C /$ $N P$ 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 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 $N C / N P$ 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 $C R / P$, 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


Fresno City College offers students an intensive hands-on learning experience in the vocational trades at the Career and Technology Center. All classes are open entry with year round registration.
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/ Vice President 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.

## Probation and Dismissal

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

## Removal from Progress Probation

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

## Removal from Academic Probation

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

## Counseling for Probationary Students

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

## Academic/Progress Dismissal

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

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

## Circumstances for Appeal or Exception of Academic Progress Dismissal

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.

Students on probation, either academic or progress, may 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.

## 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.


Fresno City College has a richly diverse studentpopulation that is reflective of the Central San Joaquin Valley.

## Honors and Awards*

## 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 Coordinator, who can be reached by calling 442-8281.

## Dean's List

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

## Honors at Graduation

## 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 at 442-8281.

## 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, contact the Honors Program office at 442-8281

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# CERTIFICATE AND DEGREE REQUIREMENTS 

## 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 24 consecutive months, the student loses his/her original catalog rights and is not continuously enrolled.

## Certificates

Certificates for a course or a series of courses may be offered by disciplines/departments/divisions. A certificate may be awarded with a minimum of "C" average for finishing a course or courses leading to specific competencies. These certificates will not appear on a student's transcript.

See page 84 for a list of certificates.

## Certificate of Achievement

A certificate of achievement shall be awarded to students who successfully complete a specified curriculum (minimum of 12 units) with a minimum " C " grade in each required course. The specific courses required for the certificate of achievement are identified in each occupational degree program where such certificates are awarded.

In order to receive the certificate of achievement, the student shall apply for the certificate with Admissions and Records upon completion of the requirements.

See page 84 for a list of certificates of achievement.

## Certificate of Completion

A certificate of completion may be awarded after meeting the designated competencies in non-credit courses.

See page 84 for a list of certificates of completion.

## Course Classification

Pursuant to revisions to the California Administrative Code, Title 5, Sections 55002 and 55062, all courses listed within the college catalog fall into one of the following classifications:

- Credit, Degree Applicable
- Credit, Nondegree Applicable
- Noncredit

See Course Classification System, page 171, for a list of credit, nondegree applicable and noncredit courses.

## Graduation Requirements

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.

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 dean or District Vice President of Admissions and Records for pertinent information.

## General Education for the 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


Networking programs in the Applied Technology and Business divisions prepare students with the necessary skills to be successful in one of the fastest growing industries.
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.

## Multiple Degrees

A student may earn 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 at any college in the district.

## Requirements for AA and AS Degrees

## 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.

## 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) degree applicable units in residence at district colleges or centers, with attendance during the last semester prior to meeting graduation requirements, 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 meeting graduation requirements.
3. At least eighteen (18) units in a discipline (major) or from related disciplines with a grade of "C" or better in each course.
4. Competence in writing, demonstrated by completion of either English 125 or English 1A, 1AH or AT 131 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 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 1 A , 1AH eligibility by an appropriate placement test score or
(b) Completion of English 1A, 1AH, or 126 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.

## Attention Student

Effective Fall 2009, competence in writing and reading, demonstrated by completion of English 1A or 1 AH with a grade of 2.0 , " C " or better.
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: Mathematics 4 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.

## Attention Student <br> Effective Fall 2009, competence in mathematics, demonstrated by <br> (a) An appropriate placement test score or <br> (b) Completion with a grade of 2.0 , " C " or better in one of the following classes: Mathematics $4 \mathrm{~A}, 4 \mathrm{~B}, 5 \mathrm{~A}, 5 \mathrm{~B}, 6,7,10,11,21,26,42,45,102$, or 103 .

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, 9, 10, 14, or 28; Computer Information Technology 12,15 , or 17 ; Library Skills 2 ; or
(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.

Note: Associate Degree requirements change Fall 2009. Refer to this page for details.

## 36 Certificate and Degree Requirements

9. Awareness of lifetime physical and mental wellness, demonstrated by completion of Health 1, Psychology 2, Psychology 2H, Psychology 33, or Child Development 38/Psychology 38.
10. Two physical education and/or dance classes. Exceptions will be considered for those students who are veterans, P.O.S.T. program candidates, Basic Fire Academy graduates, or who submit a physician's statement certifying that they are not physically able to participate in physical education classes. Physical education courses that will meet this requirement are Physical Education 3-7, 9, 11-15C, 17, 23, 25, 29B-42B, $29 \mathrm{C}-42 \mathrm{C}$, and 50-55.
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, 2 H , or 110 .
(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, 9, 20, 24, 46
Chemistry 1A, 3A, 3B
Geography 1, 7, 8
Geology 1, 2, 4, 5, 9
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 , 2 H , or 110
(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, 41
American Indian Studies 31, 32, 33, 34
Anthropology 1, 2/2H, 3, 4, 20, 28
Asian-American Studies 1, 15

Business Administration 20
Chicano-Latino Studies 11, 12, 13,14, 24 , 28, 29, 30

Child Development 5, 39
Economics 1A/1AH, 1B/1BH, 25
Geography 2, 4A, 4B, 20
History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 11,12,15,17,18,21$, 22, 29, 30, 34
Human Services 20
Political Science 1, 5, 24, 25
Psychology 5, 15, 25, 36, 39
Sociology 1A, 2, 10, 14, 31, 32
Women's Studies 10, 24, 41, 43, 47
C. Humanities (3 units)

African-American Studies 3, 8, 13, 15, 17, 21, 22, 49
American Indian Studies 35
American Sign Language 1, 2, 3, 4, 5, 6, 7, 8
Architecture 10, 11, 20, 30
Armenian 1, 2, 3
Art 2, 3, 4, 5/5H, 6/6H, 7, 8, 9, 10, 11, 12A, 12B, 14, 15, 16, 17, 18, 19, 20, 21, 22A, 22B, 23, 27, 28, 29, 31, 32A, 32B, 35, 39B, 40B, 45, 55, 65
Chicano-Latino Studies 17, 18, 20, 21, 27
Chinese 1, 2, 3, 4, 5
Dance 13, 17, 20A, 20B, 23, 27, 30
English 1B/1BH, 12, 14, 15A, 15B, 15C, 15D, $17,20,36,42,44 \mathrm{~A}, 44 \mathrm{~B}, 45,46 \mathrm{~A}, 46 \mathrm{~B}$, 47,48A, 48B

Film 1, 2A, 2B, 3, 5
French 1, 2, 3, 4
German 1, 2, 3, 4
Graphic Communications 39A, 40A
Hmong 1, 2
Humanities $10 / 10 \mathrm{H}, 11 / 11 \mathrm{H}$
Japanese 1, 2
Journalism 1, 2, 6, 16
Linguistics 10,11
Music 3, 5, 12, 13, 14, 16, 17, 20, 21, 24, $25,26,27,28,29,30,32,34,35,36,39$, $40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}, 46,48,53$, 90, 91, 92

Philosophy 1A/1AH, 1B, 1C, 1D, 5, 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, 27A, 27B, 30, 31, 32, $35,36,41,42,43,44,46$
Women's Studies 36
D. Language and Rationality
(6 units: D.1. $=3$ units; D.2. $=3$ units)

1. Composition
(The course used to fulfill this general educa-
tion area requirement may also be used to
satisfy degree requirement 4, competence in
writing, above.)
Applied Technology 131
English 1A/1AH, 125
2. Communication and Analytical Thinking Applied Technology 10, 130
Business Administration 10/10H, 18, 30, 33
Computer Information Technology 60
Computer Science 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, 13, 14, 15, 16, $17,18,20,22,23,30,41$
Marketing 10
Math $101,102,103,4 \mathrm{~A}, 4 \mathrm{~B}, 11,42$ or any advanced math class
Philosophy 4
Political Science 13
Psychology 42
Speech 25
See a counselor for other courses which fulfill this requirement.

## 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.


Each spring the commencement and certificate ceremonies are beld to celebrate student achievements and success.

Students who wish to be a candidate for graduation in two years must carry an average of 15 units per semester.

## TRANSFER INFORMATION AND 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 60 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 one's objectives at the time of enrollment cannot be overemphasized. Also, there are differences in the transfer requirements of colleges and universities. Therefore, it is 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 Fresno City College counseling/career center. It is, however, wise for students to order their own personal copies directly from the college or university of their choice.

Careful selection of courses at Fresno City College will prepare a student for transfer with junior standing to
a baccalaureate institution and at the same time enable the student to complete the requirements for the associate degree. Those Fresno City College courses which are accepted at other schools are not always exact equivalents of their courses but normally are accepted as meeting the same requirements.

In accordance with Executive Order No. 167 from the Chancellor's Office of the California State Universities, Fresno City College baccalaureate level courses are numbered 1 to 99. These courses are listed on page 45 of this catalog. The courses so designated by Fresno City College shall be accepted by any campus of the State University for elective 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 47. 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 for student use in the Transfer Center.

## Articulation

Articulation is a process of developing formal written agreements that identify courses on one campus that are accepted in lieu of specific courses at another college or that fulfill a specific statewide pattern of general education.

Fresno City College has developed numerous articulation agreements with California State University and

University of California campuses. These agreements may be viewed at www.assist.org or in the Fresno City College Transfer Center.

Articulation agreements have also been developed with some California private and out-of-state colleges and universities. These agreements are available in the Fresno City College Transfer Center as well. See a counselor for assistance.

## Articulation System

Stimulating Inter-Institutional Student Transfer (ASSIST)

ASSIST is a single computerized database located at www. assist.org that provides access to articulation agreements developed between California Community Colleges, the California State Universities (CSU), and the Universities of California (UC). As articulation agreements are updated, so is the information maintained in ASSIST.

- CSU Transferable Courses

These lists identify courses from a community college that transfer to any CSU campus for baccalaureate/ transfer credit.

- CSU GE-Breadth Certification Courses

These are lists of courses from a community college that apply to the CSU GE-Breath certification requirements.

- CSU US History, Constitution, and American Ideals Courses
These lists identify courses from a community college that satisfy the US history, Federal Constitution, and California state and local government degree requirements.


## - IGETC for UC and CSU

These are lists of courses from a community college that apply to the Intersegmental General Education Transfer Curriculum (IGETC) requirements.

- UC Transferable Courses

These agreements list courses from community colleges that transfer to all University of California campuses.

Agreements with Other CampusesCampus Specific

- By Major

These agreements specify courses at a sending institution that fulfill lower-division major requirements at a receiving institution.

- By Department

These agreements identify courses at a sending institution that are acceptable in lieu of courses at a receiving institution. They display courses taught by the departments at a specified institution.

- For General Education/Breadth

These agreements indicate the courses at a sending institution that satisfy the general education or breadth requirements at a receiving institution. See a counselor for assistance on how to use ASSIST.

## 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 CAN System is designed to facilitate student transfer between and among public institutions of higher education in the State of California.
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.

All CAN qualified courses listed below remain in effect through August 2009. CAN is being phased out and will be replaced with a numbering system related to the Lower Division Transfer Pattern (LDTP) project by major. CAN may be effective in future years pending CSU Chancellor's Office determination. See a counselor for assistance.
Fresno City College's CAN qualified courses are identified in the following course descriptions in the catalog. Fresno City College's CAN qualified courses are as follows:

## 40 Transfer Information and Requirements

(CAN) Qualified Course for Fresno City College as of November 2004

| BUS 2 | ACCTG 4A, Financial Accounting |
| :---: | :---: |
| BUS SEQ A | ACCTG 4A +4 B , Financial Accounting + Managerial Accounting |
| BUS 4 | ACCTG 4B, Managerial Accounting |
| ANTH 2 | ANTHRO 1, Biological Anthropology |
| ANTH 4 | ANTHRO 2 or 2H, Cultural Anthropology |
| ANTH 6 | ANTHRO 3, Introduction to Archaeology and Prehistory |
| ART 14 | ART 3, Two-Dimensional Design |
| ART 16 | ART 4, Three-Dimensional Design |
| ART 2 | ART 5 or 5H, Art History 1 |
| ART SEQ A | ART 5+6 or $5 \mathrm{H}+6 \mathrm{H}$, Art History 1 \& 2 |
| ART 4 | ART 6 or 6H, Art History 2 |
| ART 8 | ART 7, Beginning Drawing |
| ART 24 | ART 8, Beginning Figure Drawing \& Anatomy |
| ART 10 | ART 9, Beginning Painting: 0il/Acrylic |
| ART 6 | ART 10, Beginning Ceramics |
| ART 12 | ART 11, Beginning Sculpture |
| ART 20 | ART 14, Beginning Printmaking |
| ART 22 | ART 35, Color Theory |
| BUS 8 | BA 18, Business and the Legal Environment |
| BIOL 2 | BIOL 1 or 1H, Principles of Biology |
| BIOL SEQ A | BIOL $1+4+6$ or $1 \mathrm{H}+4+6$, Principles of Biology+ Zoology + Botany |
| BIOL 4 | BIOL 4, Principles of Zoology |
| BIOL 6 | BIOL 6, Principles of Botany |
| BIOL 10 | BIOL 20, Human Anatomy |
| BIOL SEQ B | BIOL 20 +22 , Human Anatomy + Human Physiology |
| BIOL 12 | BIOL 22, Human Physiology |
| BIOL 14 | BIOL 31, Microbiology |
| FCS 14 | CHDEV 39 or PSY 39, Child Development |
| CHEM 2 | CHEM 1A, General Chemistry |
| CHEM SEQ A | CHEM $1 \mathrm{~A}+1 \mathrm{~B}$, Gen Chemistry + Gen Chemistry and Qualitative Analysis |
| CHEM 4 | CHEM 1B, General Chemistry and Qualitative Analysis |
| CHEM SEQ B | CHEM 3A+3B, Intro Gen Chemistry + Intro Organic \& Biological Chemistry |
| CHIN 2 | CHIN 1, Beginning Chinese |
| CHIN SEQ A | CHIN 1+2, Beginning/High -Beginning Chinese |
| CHIN 4 | CHIN 2, High-Beginning Chinese |
| CSCI 2 | CIT 12, Computer Literacy |

CAN Number Fresno City College Course
BUS 6 CIT 15, Computer Concepts
AJ 2 CRIM 1, Intro to Criminology
AJ 6 CRIM 3, Legal Aspects of Evidence
AJ 4 CRIM 6, Concepts of Criminal Law
AJ $8 \quad$ CRIM 8, Criminal Investigation
CSCI 4 CSCI 20, Programming in the FORTRAN Language
CSCI 22 CSCI 40, Programming Concepts \& Methodology I
CSCI 24 CSCI 41, Programming Concepts \&
Methodology II
MATH 12 DS 21 or MATH 21, Finite Mathematics
ECON 2 ECON 1A, Intro to Macroeconomics
ECON 4 ECON 1B, Intro to Microeconomics
ENGL 2 ENGL 1A or 1AH, Reading \& Composition
ENGL SEQ A ENGL 1A +1 B or $1 \mathrm{AH}+1 \mathrm{BH}$, Reading \&
Composition + Intro to the
Study of Literature
ENGL 4 ENGL 1B or 1BH, Intro to Study of Literature

ENGL 6 ENGL 15A, Creative Writing: Poetry
ENGL 8 ENGL 46A, English Literature to 1800
ENGL SEQ B ENGL 46A +46 B, English Literature
ENGL 10 ENGL 46B, English Literature from 1800-Present
ENGL 14 ENGL 48A, Intro to American Literature to World War I
ENGL SEQ C ENGL 48A+48B, Intro to American Literature

ENGL 16 ENGL 48B, Intro to American Literature from World War I to the Present
ENGR 10 ENGR 1A, Elementary Plane Surveying I
ENGR 2 ENGR 2, Graphics
ENGR 4 ENGR 4, Engineering Materials
ENGR 6 ENGR 6, Circuits with Lab
ENGR 8 ENGR 8, Statics
FCS 8 FN 1, Principles of Food Preparation
FCS 2 FN 40, Nutrition
FREN 2 FRENCH 1, Beginning French
FREN SEQ A FRENCH 1+2, Beginning/HighBeginning French
FREN 4 FRENCH 2, High-Beginning French
FREN SEQ B FRENCH $3+4$, Intermediate/HighIntermediate French
FREN 8 FRENCH 3, Intermediate French
FREN 10 FRENCH 4, High-Intermediate French
GEOG 2 GEOG 1, Physical Geography

CAN Number Fresno City College Course
GE0G 4 GE0G 2, Cultural Geography
GEOL 2 GEOL 1, Physical Geology
GEOL 8 GEOL 2, Historical Geology
GERM 2 GERMAN 1, Beginning German
GERM SEQ A GERMAN 1+2, Beginning/High-
Beginning German
GERM 4 GERMAN 2, High-Beginning German
GERM 8 GERMAN 3, Intermediate German
GERM SEQ B GERMAN 3+4, Intermediate/HighIntermediate German
GERM 10 GERMAN 4, High-Intermediate German
HIST 2 HIST 1 or 1H, Western Civilization to 1648
HIST SEQ A HIST 1+2, Western Civilization
HIST 4 HIST 2 or 2H, Western Civilization Since 1648
HIST 8 HIST 11, History of the U.S. to 1877
HIST SEQ B HIST $11+12$, History of the U.S.
HIST 10 HIST 12, History of the U.S. Since 1877
KINE/PE 8 HLTH 2, First Aid and Safety
JAPN 2 JAPAN 1, Beginning Japanese
JAPN SEQ A JAPAN 1+2, Beginning/High-Beginning Japanese
JAPN 4 JAPAN 2, High-Beginning Japanese
JOUR 4 JOURN 1, Intro to Mass Communication
JOUR 2 JOURN 3, Newswriting
MATH 8 MATH 4A, Trigonometry
MATH 16 MATH 4B, Precalculus
MATH 18 MATH 5A, Mathematical Analysis I
MATH SEQ B MATH 5A +5 B , Mathematical Analysis I/II
MATH SEQ C MATH 5A $+5 B+6$, Mathematical Analysis I/II/III
MATH 20 MATH 5B, Mathematical Analysis II
MATH 22 MATH 6, Mathematical Analysis III
MATH 24 MATH 7, Introduction to Differential Equations
MATH 4 MATH 10A, Structure and Concepts in Mathematics
STAT 2 MATH 11, Elementary Statistics
MATH 12 MATH 21 or DS 21, Finite Mathematics
MATH 26 MATH 26, Elementary Linear Algebra
PSY 6 MATH 42 or PSY 42, Statistics for the Behavioral Sciences
MATH 2 MATH 45, Contemporary Math
KINE/PE 4 PE 20, Athletic Training
KINE/PE 2 PE 62, Introduction to Kinesiology
KINE/PE 12 PE 23, Lifeguard Training

CAN Number Fresno City College Course
KINE/PE 10 PE 25, Water Safety Instructor
PHIL 2 PHIL 1A or 1AH, Theories of Knowledge and Reality
PHIL 4 PHIL 1C, Ethics
PHIL 6 PHIL 6, Introduction to Logic
ART 18 PHOTO 10, Basic Black \& White Photography
PHYS 2 PHYS 2A, General Physics 1
PHYS SEQ A PHYS 2A +2 B , General Physics $1 / 2$
PHYS 4 PHYS 2B, General Physics 2
PHYS 8 PHYS 4A, Physics for Scientists and Engineers
PHYS SEQ B PHYS 4A $+4 \mathrm{~B}+4 \mathrm{C}$, Physics for Scientists and Engineers
PHYS 12 PHYS 4B, Physics for Scientists and Engineers
PHYS 14 PHYS 4C, Physics for Scientists and Engineers
GOVT 2 POLSCI 2, American Government
PSY 2 PSY 2 or 2H, General Psychology
FCS 14 PSY 39 or CHDEV 39, Child Development
PSY 6 PSY 42 or MATH 42, Statistics for the Behavioral Sciences
REC 2 REC 20, Introduction to Recreation
REC 4 REC 21, Recreation Leadership
RUSS SEQ A RUSS 1+2, Beginning/High-Beginning Russian
RUSS 4 RUSS 2, High-Beginning Russian
SOC 2 SOC 1A, Intro to Sociology
SOC 4 SOC 1B, Global Social Problems
SPAN 2 SPAN 1, Beginning Spanish
SPAN SEQ A SPAN 1+2, Beginning/High-Beginning Spanish
SPAN 4 SPAN 2, High-Beginning Spanish
SPAN 8 SPAN 3, Intermediate Spanish
SPAN SEQ B SPAN 3+4, Intermediate/HighIntermediate Spanish
SPAN 10 SPAN 4, High-Intermediate Spanish
SPCH 4 SPEECH 1, Intro to Public Speaking
SPCH 8 SPEECH 2, Interpersonal Communication
SPCH 6 SPEECH 25, Argumentation
DRAM 12 TA 25, Theatre Crafts I
DRAM 14 TA 28, Intro to Stage Makeup
DRAM 18 TA 30, Theatre Appreciation
DRAM 22 TA 43, Intermediate Acting

## 42 Transfer Information and Requirements

| LOWer Division Transfer Pattern |  |
| :--- | :--- |
| Fresno City College's LDTP qualified courses are identified |  |
| in the following descriptions in the catalog. Fresno City |  |
| College's LDTP qualified courses are as follows: |  |
| LDTP Number | Fresno City College Course | | TCSU AFAM 119 | AFRAM 3, African-American Art |
| :--- | :--- |
| TCSU AFAM 119 | AFRAM 8, African-American Creative |
|  | Workshop |
| TCSU AFAM 119 | AFRAM 13, African-American Music from |
|  | Pre-Slavery to 1940 |
| TCSU AFAM 119 | AFRAM 15, African-American Music from |
|  | 1940 to the Present |
| TCSU AFAM 119 | AFRAM 17, African-American Literature |
| TCSU AFAM 219 | AFRAM 1, African-American Culture |
| TCSU AFAM 219 | AFRAM 2, Cultural Adaptation of the |
| African-American |  |

TCSU PHIL 120
TCSU POLS 110

## TCSU PSY 110

TCSU SOC 110
TCSU SPAN 130
TCSU SPAN 140
TCSU SPAN SEQ B SPAN $3+4$, Intermediate/HighIntermediate Spanish
TCSU SW 110

## Transfer to California State University (CSU)

## Transfer Requirements to California State University (CSU)

For students who plan to transfer and complete a bachelor's degree, Fresno City College offers the first two years of most baccalaureate level (four-year) degree programs. Each baccalaureate level institution has a basic pattern of lower-division general education and specific major requirements which may be fulfilled at Fresno City College. In addition, students may make up any high school grade or subject deficiencies which are required for entrance to baccalaureate level colleges or universities.

Students should acquaint themselves with the current catalog of the college to which they plan to transfer. A library of current college and university catalogs and internet access to college catalogs and websites are available in the Transfer Center. It is also recommended that students work closely with their counselor in order to fulfill requirements for the college of their choice. However, the final responsibility for the selection of proper transfer, major, and general education courses rests with the student.

## California State University (CSU)

## Admission

Students who completed college units before they graduated from high school or during the summer between high school graduation and CSU enrollment are considered first time freshmen and must meet freshmen admission requirements.

Otherwise, students who have completed college units are considered transfer students.

Students who have completed 59 or fewer CSU transferable semester college units at the time of transfer are considered lower division transfer students.

Students who have completed 60 or more CSU transferable semester college units at the time of transfer are considered upper division transfer students.

## Lower Division Transfer Students

Students are eligible for admission with fewer than 60 CSU transferable semester units (90 quarter units) if the student:

- Has a college grade point average of 2.0 or better in all transferable college units attempted.
- Is in good standing at the last college or university attended, i.e., you are eligible to re-enroll.
- Meets the admission requirements for a first-time freshman or have successfully completed necessary courses to make up the deficiencies you had in high school if you did not complete the 15 unit pattern of college preparatory subjects.
- Meets the eligibility index required of a freshman.

Some campuses may require lower-division transfer students to have completed English composition and general education mathematics prior to transfer. Contact your campus of choice to determine whether there are admission limits on the number of lower-division transfer students.

## Upper Division Transfer Students

Students are eligible for admission with 60 or more CSU transferable semester units ( 90 quarter units) if the student:

- Has a college grade point average of 2.0 or better (2.4 for non-California residents) in all transferable college units attempted.
- Is in good standing at the last college or university attended, i.e., is eligible to re-enroll.
- Has completed or will complete prior to transfer at least 30 semester units ( 45 quarter units) of courses equivalent to CSU general education requirements with a grade of C or better. The 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course of at least 3 semester units (4 quarter units) required in college-level mathematics.


## General Education <br> Requirements For California State University Certification (CSU-GE)

The CSU General Education-Breadth program allows California community college transfer students to fulfill lower-division general education requirements for any CSU campus prior to transfer. This curriculum provides an alternative to the IGETC requirements and to the campus specific university GE-Breadth requirements. It is important to note that CSU GE-Breadth certification is not an admission requirement, nor does completion guarantee admission to the campus or program of choice.

Up to 39 of the 48 GE-Breadth units required can be transferred from and certified by a California community college. Students who are certified with 39 semester units of lower division GE-Breadth units cannot be held to additional lower division GE courses at the CSU campus. Upon enrollment at CSU, all transfer students will be required to complete a minimum of 9 semester units of upper division general education. Students without certification may be held to the general education pattern developed for CSU students which may vary greatly from the community college CSU-GE Breadth pattern.

## Fresno City College CSU General Education - Breadth 2008-2010

Area A: Communication in the English Language and Critical Thinking
Nine semester units minimum with one course from $A 1, A 2$, and $A 3$ ("C" or better grade required in A1, A2, and A3).

- Area A1, Oral Communication

Speech 1, 2, 4, 8

- Area A2, Written Communication

English 1A/1AH

- Area A3, Critical Thinking

Criminology 13
English 3/3H
Philosophy 4, 6
Political Science 13
Speech 25

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Area B: Physical Universe and Its Life Forms Nine semester units minimum with at least one course in B1, B2, and B4 ("C" or better grade required in B4.) One course in B1 or B2 must contain a lab component indicated by (L) or be accompanied by a course in B3.

- Area B1, Physical Science

Astronomy 10(L)
Chemistry $1 \mathrm{~A}(\mathrm{~L}), 1 \mathrm{~B}(\mathrm{~L}), 3 \mathrm{~A}(\mathrm{~L}), 3 \mathrm{~B}(\mathrm{~L}), 8 \mathrm{~A}, 28 \mathrm{~A}$, 28B
Geography 1, 7(L), 8(L)
Geology 1(L), 2, 4, 5
Physical Science 11
Physics 2A(L), 2B(L), 4A(L), 4B(L), 4C(L)

- Area B2, Life Science

Biology 1/1H(L), 3(L), 4(L), 5(L), 6(L), 7(L), 20(L), 22(L), 24(L), 31(L)

- Area B3, Laboratory Activity

Chemistry 29A, 29B

- Area B4, Mathematics/Quantitative Reasoning
Computer Science 26
Decision Science 21, 23
Mathematics $4 \mathrm{~A}, 4 \mathrm{~B}, 5 \mathrm{~A}, 5 \mathrm{~B}, 6,10 \mathrm{~A}, 10 \mathrm{~B}, 11,21$, 26, 42, 45
Psychology 42
Area C: Arts, Literature, Philosophy and Foreign Language
Nine semester units minimum with at least one course each from C1 and C2.
- Area C1, Arts

African-American Studies 3, 8, 13, 15, 49
American Indian Studies 35
Architecture (10 and 20) or (11 and 30 or 20)
Art $2,3,4,5 / 5 \mathrm{H}, 6 / 6 \mathrm{H}, 7,9,10,11,12 \mathrm{~A}, 12 \mathrm{~B}, 14$, $15,17,22 \mathrm{~A}, 35,45,55,65$
Chicano-Latino Studies $+17,20,+27$
Dance $+17,20 \mathrm{~A},+27,30$
Film 1, 2A, 2B, 6
Music 3, 12, 13, 14, 16, 20, 21, 24, 25, 27, 28, 30, 32, 39, 40, 46
Photography 5, 10, 15, 20
Speech 12
Theatre Arts 12, 30, 41, 43, 44
+Only one course can be used to satisfy this area.

- Area C2, Humanities

African-American Studies 17, 21, 22

American Sign Language 1, 2, 3, 4, 5, 6, 7, 8
Armenian 1, 2, 3
Chicano-Latino Studies 21
Chinese 1, 2, 3, 4, 5
English 1B/1BH, 12, 15A, 15B, 15C, 15D, 17, 36,
$40,42,44 \mathrm{~A}, 44 \mathrm{~B}, 45,46 \mathrm{~A}, 46 \mathrm{~B}, 47,48 \mathrm{~A}, 48 \mathrm{~B}$
Film 1, 2A, 2B, 3
French 1, 2, 3, 4
German 1, 2, 3, 4
History 1/1H, 2/2H
Hmong 1, 2
Humanities $10 / 10 \mathrm{H}, 11 / 11 \mathrm{H}$
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, 7, 12
Swahili 1, 2
Theatre Arts 15C, 31, 32
Women's Studies 36
Area D: Social, Political, and Economic
Institutions and Behavior, Historical Background
Nine semester units minimum from at least three disciplines:

- Area D0, Sociology and Criminology

Human Services 10
Sociology 1A, 2, 10, 32

- Area D1, Anthropology and Archaeology

Anthropology 2/2H, 3

- Area D2, Economics

Economics 1A/1AH, 1B/1BH

- Area D3, Ethnic Studies

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

- Area D4, Gender Studies

History 22
Women's Studies 10, 47

- Area D5, Geography

Geography 2, 4A, 4B, 20

- Area D6, History

African-American Studies 4
Chicano-Latino Studies 29
History 1/1H, 2/2H, 11, 12, 15, 22, 29

- Area D7, Interdisciplinary Social or Behavioral Science
American Studies 10
Child Development 39
Psychology 39
- Area D8, Political Science, Government \& Legal Institutions
Business Administration 20
Political Science 1, 2, 2H, 5
- Area D9, Psychology

Child Development 38, 39
Psychology 2/2H, 38, 39

## Area E: Lifelong Understanding and SelfDevelopment <br> Three semester units minimum.

Child Development 38, 39
Health Science 1
Psychology 2/2H, 33, 38, 39
Total Minimum Units Required for Certification.
Notes: Courses listed in more than one area or sub-area may only be used one time.

The same course, e.g. SWAHLI1/AFRAM 21, can be counted only once.

Some CSU campuses have restrictions on when courses in AREAS A and B4 must be completed prior to transfer.

Additional courses may be added to the Fresno City College CSU GE-Breadtb. An updated CSU General Education Sheet may be obtained from the Counseling Center, the Transfer Center, the Fresno City College Website, or www. assist.org.

Students transferring into Engineering and Liberal Studies majors may be required to complete specific courses in each area of CSU GE-Breadth or they may be waived/ exempted from specific areas. See a counselor for assistance.

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

A maximum of 70 semester units earned at community college may be transferred to CSU. Course work completed above the 70 units may be used to satisfy GE and major preparation even though the units will not count toward the bachelor's degree.

## U. S. History, Constitution, and American Ideals

To graduate from the California State University a student must complete, with a "D' or better grades (Fall 2009, " C " or better grade will be required.), a combination of courses which are identified as meeting the U. S. History, Constitution, and American Ideals requirements. Courses at Fresno City College which meet this requirement are:

One course from History 11 or 12 combined with one course from Political Science 2 or 2H. These courses may also be used simultaneously to satisfy course requirements on the CSU GE-Breadth pattern.

## California State University Transfer Course List (CSU)

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 $4 \mathrm{~A} / 4 \mathrm{AH}, 4 \mathrm{~B} / 4 \mathrm{BH}, 19,32 \mathrm{~A}, 34,51,52,53$,
55, 56, 57, 58, 59, 70, 73
Aerospace Studies 1A, 1B, 2A, 2B, 3, 5
African-American Studies $1,2,3,4,5,6,8,13,15,17$, $21,22,36,41,49$
Air Conditioning 19, 50, 51, 52, 53, 54, 55, 56, 57, 60A
American Indian Studies 31, 32, 33, 34, 35
American Sign Language $1,2,3,4,5,6,7,8$
American Studies 10
Anthropology $1,2 / 2 \mathrm{H}, 3,4,5,6,7,13,19,20,27,28$, 29, 30
Applied Technology 10, 11, 21, 40
Apprenticeship 19
Architecture 10, 11, 12, 14, 20, 21, 22, 24, 30, 31, 32, 34, 40, 41A, 42, 44
Armenian 1, 2, 3
Art $2,3,4,5 / 5 \mathrm{H}, 6 / 6 \mathrm{H}, 7,8,9,10,11,12 \mathrm{~A}, 12 \mathrm{~B}, 13,14$, $15,16,17,18,19,20,21,22 \mathrm{~A}, 22 \mathrm{~B}, 23,24 \mathrm{~A}, 24 \mathrm{~B}$, $24 \mathrm{C}, 24 \mathrm{D}, 25,27,28,29,31,32 \mathrm{~A}, 32 \mathrm{~B}, 35,39 \mathrm{~B}, 40 \mathrm{~B}$, 45, 49, 55, 60, 65
Asian-American Studies $1,10,15,20,25,30$
Astronomy 10

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Automotive Collision Repair Technology 51, 51A, 51B, 53, 53A, 53B, 55
Automotive Technology 9, 19, 51, 51L, 52, 53, 54, 55, 56, 57, 58, 58A, 58B, 58C
Automotive Technology - General Motors ASEP 51, 51L, 52, 53, 54, 55, 56, 57
Biology $1 / 1 \mathrm{H}, 3,4,5,6,7,8 \mathrm{~A}, 8 \mathrm{~B}, 8 \mathrm{C}, 9,20,22,24,31$, 46, 47
Building Safety and Code Administration 10, 12, 14, $15,16,17,18,20,22,24,27,37,47$
Business Administration 5, 7, 8, 10, 10H, 11, 13, 14, $16,18,19,20,21,22,23,25,27,28,30,31,32,33$, $34,35,37,38,40,43,44,48,50,51,52,55,56,57$, 58

Business \& Technology 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 14, $18,19,20,21,23,24,25,26,27,28,29,30,43$
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 3, 5, 6, 8A, 8B, 9, 10, 11, 12, 14, $15,16,17 \mathrm{~A}, 17 \mathrm{~B}, 18 \mathrm{~A}, 18 \mathrm{~B}, 19,30,37 \mathrm{~A}, 37 \mathrm{~B}, 38,39$, 40А, 40B, 42, 43, 44, 45, 46, 47, 48
Chinese 1, 2, 3, 4, 5
Computer Aided Drafting and Design 14, 22, 24, 26, 32, 36, 40, 42
Computer Aided Manufacturing 10, 20, 30, 40, 50
Computer Information Technology 12, 15, 17, 19, 20, $21,23,24,26,27,29,31,40,45,50,51,52,53,54$, $55,56,60,61,63,64,66,67,68,80,81,85,86,87$, 90, 93
Computer Science 20, 26, 30, 40, 40J, 41
Construction 19, 50A, 50B, 51, 51A, 51B, 53, 53A, 53B, 55, 56, 57
Counseling 11, 38, 41, 43, 47A, 47B, 48, 49, 53, 54
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 7/7H, 10, 11
Dance $9,10,11,12,13,14,15,16,17,18,20 \mathrm{~A}, 20 \mathrm{~B}, 21$, $22,23,24,25,26,27,30$
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
Economics 1A/1AH, 1B/1BH, 25
Education 30
Educational Aide 1, 6, 7, 19
Educational Aide/Paraeducator 19
Electrical Systems Technology 19, 50, 51, 52, 53, 54, $55 \mathrm{~A}, 55 \mathrm{~B}, 55 \mathrm{C}, 56 \mathrm{~A}, 56 \mathrm{~B}, 56 \mathrm{C}, 57 \mathrm{~A}, 57 \mathrm{~B}, 57 \mathrm{C}, 58,59$, $60,61,62,63,64,65,66,67,68,96 \mathrm{~A}, 96 \mathrm{~B}, 96 \mathrm{C}, 96 \mathrm{D}$

Engineering 1A, 1B, 2, 4, 6, 8, 10, 11
English $1 \mathrm{~A} / 1 \mathrm{AH}, 1 \mathrm{~B} / 1 \mathrm{BH}, 3 / 3 \mathrm{H}, 4,6,12,14,15 \mathrm{~A}, 15 \mathrm{~B}$, 15C, 15D, 17, 20, 36, 40, 42, 44A, 44B, 45, 46A, 46B, 47, 48А, 48B
English as a Second Language 67, 68
Fashion Merchandising 10, 14, 19, 20, 21, 22, 25, 27, 28
Film 1, 2A, 2B, 3, 5, 6
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 $1,2,4 \mathrm{~A}, 4 \mathrm{~B}, 7,8,10,20,30$
Geology 1, 2, 4, 5, 9
German 1, 2, 3, 4
Graphic Communications 5, 10, 13, 14, 15, 16, 17, 18, $19,20,22,23,24,25,27,30,39 \mathrm{~A}, 40 \mathrm{~A}, 41$
Health Information Technology 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19
Health Science 1, 2 ,
History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 3,11,12,15,17,18,20,21,22,29$, 30, 34
Hmong 1, 2
Home Economics 7, 20, 24, 26, 30
Honors 1A, 1B, 1C, 1D, 1E, 1F, 1G
Human Services 10, 18, 19A, 19B, 20, 24, 25, 30, 35, 40, 42, 43, 44
Humanities $7 / 7 \mathrm{H}, 10 / 10 \mathrm{H}, 11 / 11 \mathrm{H}$
Individual Study 49
Japanese 1, 2
Journalism 1, 2, 3, 4, 5, 6, 9, 15, 16
Latin American Studies 11
Library Skills 1, 2, 19
Library Technology 19, 51, 52, 54, 55, 56, 57, 60
Linguistics 4, 10, 11
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, 20, 21, 31, 32, 41, 42, $50 \mathrm{~A}, 50 \mathrm{~B}, 51 \mathrm{~A}, 51 \mathrm{~B}, 52 \mathrm{~A}, 52 \mathrm{~B}$
Music 1A, 1B, 2A, 2B, 3, 4, 5, 6, 7A, 7B, 8, 9, 10A, 10B, $12,13,14,16,17,18,20,21,22,24,25,26,27,28$, 29, 30, 32, 34, 35, 36, 39, 40, 41, 42A, 42B, 42C, 42D, $46,47,48,49,53,57,58,59,60,61,63,64,66,67$, $68,69,70,71,72,73 \mathrm{~A}, 73 \mathrm{~B}, 73 \mathrm{C}, 73 \mathrm{D}, 74 \mathrm{~A}, 74 \mathrm{~B}, 74 \mathrm{C}$, $74 \mathrm{D}, 75,76,77,78,90,91,92$

## Natural Science 1A

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 $1 \mathrm{~A} / 1 \mathrm{AH}, 1 \mathrm{~B}, 1 \mathrm{C}, 1 \mathrm{D}, 4,5,6$
Photography 5, 10, 12, 15, 19, 20, 23, 25, 30, 33, 35, 40, 45
Physical Education 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15A, 15B, 15C, 17, 20, 23, 24, 25, 29A, 29B, 29C, 30A, 30B, $30 \mathrm{C}, 31 \mathrm{~A}, 31 \mathrm{~B}, 31 \mathrm{C}, 32 \mathrm{~A}, 32 \mathrm{~B}, 33 \mathrm{~A}, 33 \mathrm{~B}, 33 \mathrm{C}, 34 \mathrm{~A}$, $34 \mathrm{~B}, 34 \mathrm{C}, 35 \mathrm{~B}, 36 \mathrm{~A}, 36 \mathrm{~B}, 36 \mathrm{C}, 37 \mathrm{~A}, 37 \mathrm{~B}, 37 \mathrm{C}, 38 \mathrm{~A}$, $38 \mathrm{~B}, 38 \mathrm{C}, 39 \mathrm{~A}, 39 \mathrm{~B}, 39 \mathrm{C}, 40 \mathrm{~A}, 40 \mathrm{~B}, 40 \mathrm{C}, 41 \mathrm{~A}, 41 \mathrm{~B}$, $41 \mathrm{C}, 42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 50,51,52,53,54,55,62$
Physical Science 7, 11
Physics 2A, 2B, 4A, 4B, 4C
Political Science $1,2 / 2 \mathrm{H}, 5,10,13,24,25$
Psychology 2, 2H, 5, 12, 14, 15, 16, 25, 33, 36, 38, 39, 42

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, 44, 45, 46, 47, 48, 49
Recreation 19, 20, 21, 23, 50
Respiratory Care $16,17,18,19,20,21,22,23,25$
Russian 1, 2, 3, 4
Sociology 1A, 1B, 2, 5, 7, 10, 14, 31, 32
Spanish 1, 2, 3, 3NS, 4, 4NS, 5, 6, 7, 8, 9, 10, 11, 12
Special Studies 47
Speech 1, 2, 4, 8, 12, 20, 25, 26
Swahili 1, 2
Theatre Arts $12,15 \mathrm{C}, 24,25,26,27 \mathrm{~A}, 27 \mathrm{~B}, 28,30,31$, $32,34,35,36,40,41,42,43,44,45,46$
Welding $1,2 \mathrm{~A}, 2 \mathrm{~B}, 3 \mathrm{~A}, 3 \mathrm{~B}, 4 \mathrm{~A}, 4 \mathrm{~B}, 19,56$
Women's Studies 5, 7, 10, 24, 25, 30, 36, 41, 43, 44, 47
Work Experience 19
Note: No more than 8 units of work experience, including both vocational and general, are considered appropriate for transfer.

## Transfer to University of California (UC)

## Transfer Requirements of the University of California (UC)

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.

## UC Transfer Admission Guarantee (Guaranteed Admission)

Fresno City College participates in guaranteed admission agreement programs with UC Davis, UC Merced, UC Riverside, UC Irvine, UC Santa Barbara, UC Santa Cruz, and UC San Diego. Specific requirements must be met for students to qualify for a transfer admission guarantee. See a counselor or the Transfer Center for Transfer Admission Guarantee information.

## University of California Transfer Course List (UC)

Courses from Fresno City College that are acceptable for transfer credit at the University of California, follow.
Accounting 4A, 4B
Aerospace Studies *1A, *1B, *2A, *2B, *3
*Any or all of these courses combined with Military Science 1, 2, 11, 12: maximum credit, 8 units.
African-American Studies 1, 2, 3, 4, 5, 6, 13, 15, 17, 21, 22, 36, 41, 49
American Indian Studies 31, 32, 34, 35
American Sign Language 1, 2, 3, 4, 6, 7, 8
American Studies 10
Anthropology 1, 2/2H, 3, 4, 13, 20, 28, \#30
\#Variable topics; evaluation completed by individual campuses after admission.
Architecture 10*, $11^{*}, 20^{*}, 30^{*}$
*Any or all of these courses and ART 3, 4, and 7 combined: maximum credit, 18 semester units per UC Berkeley's College of Environmental Design.
Armenian 1, 2, 3
Art $2,3,4,5 / 5 \mathrm{H}, 6 / 6 \mathrm{H}, 7,8,9,10,11,13,14,15,16$, $17,18,19,20,21,23,24 \mathrm{~A}, 24 \mathrm{~B}, 24 \mathrm{C}, 24 \mathrm{D}, 25,27,28$, 29, 31, 35, 55, 60, 65
Asian-American Studies $1,10,15,20,25,30$
Astronomy 10

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Biology $1 / 1 \mathrm{H},{ }^{* \circ} 3,4,5,6,7,{ }^{\circ} 9,20,22,31$
*3 and 9 combined: maximum credit, 1 course
${ }^{\circ}$ No credit for 3 or 9 if taken after 1 or 1 H .
Business Administration 10/10H, *18, +20, *21
*18 and 21 combined: maximum credit, 1 course +20 and Political Science 20 combined: maximum credit, 1 course.
Chemistry *1A, 1B, *3A, 8A, 28A, 28B, 29A, 29B
*1A and $3 A$ 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 Information Technology *12, *15, 60, 61, 63, 64, 66, 67, 68
*12 and 15 combined: maximum credit, 1 course.
Computer Science 20, 26, 40, 40J, 41
Criminology 1, 5, 13
Cultural Studies 11
Dance * $9,10,11,12,13,14,15,16,17,18,20 \mathrm{~A}, 20 \mathrm{~B}$, 21, 22, \#23, \#24, 25, 27, 30
*Any or all of these PE Activity courses combined; maximum credit, 4 units.
\# Variable topics; evaluation completed by individual campuses after admission.
Decision Science 21, *23
*23 combined with Math 11/42 and Psychology 42. maximum credit, 1 course.

Economics $1 \mathrm{~A} / 1 \mathrm{AH}, 1 \mathrm{~B} / 1 \mathrm{BH}$
Engineering 1A, $1 \mathrm{~B}, 2,4,6,8,10$
English $1 \mathrm{~A} / 1 \mathrm{AH}, 1 \mathrm{~B} / 1 \mathrm{BH}, 3 / 3 \mathrm{H}, 4,12,14,15 \mathrm{~A}, 15 \mathrm{~B}$, 15C, 15D, 17, 20, 36, 40, 42, 44A, 44B, 45, 46A, 46B, 47, 48A, 48B

Fashion Merchandising 20
Film 1, 2A, 2B, 3, 5, 6
Food and Nutrition 40
French 1, 2, 3, 4
Geography *1, 2, 4A, 4B, *7, 8, 10, 20
*1 and 7 combined: maximum credit, 1 course.
Geology 1, 2, 5, 9
German 1, 2, 3, 4
Health Science 1, 2
History $1 / 1 \mathrm{H}, 2 / 2 \mathrm{H}, 3,11,12,15,17,18,20,21,22,29$, 30, 34
Hmong 1, 2
Home Economics 20, \#30
\#Variable topics; evaluation completed by individual campuses after admission.
Honors Studies \#1A, \#1B, \#1C
\#Variable topics; evaluation completed by individual campuses after admission.
Human Services 10

Humanities 10, 11
Individual Study \#49
\#Variable topics; evaluation completed by individual campuses after admission.
Japanese 1, 2
Journalism 1
Linguistics 4, 10
Mathematics 4B, 5A, 5B, 6, 7, *10A, *10B, ${ }^{\circ} 11,21,26$, ${ }^{\circ} 42$
*10A and 10B combined: maximum credit, 1 course.
${ }^{\circ} 11$ and 42 combined with Decision Science 23 and Psychology 42: maximum credit, 1 course.

Military Science *1, *2, *11, *12
*Any or all of these courses combined with Aerospace Studies 1A, 1B, 2A, 2B, 3: maximum credit, 8 units.
Music 1A, 1B, 2A, 2B, *3, 4, 7A, 7B, 9, 12, 13, 14, 16,
18, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 32, 34, 35,
36, 39, 40, 41, 42A, 42B, 42C, 42D, 46, 48, 49
*No credit for 3 if taken after 1A.
Philosophy 1A/1AH, 1B, 1C, 1D, 4, 5, 6
Photography 5, 10
Physical Education $+3-17,20,23, ~ * 24,25, ~ * 29 \mathrm{~A}-42 \mathrm{~A}$, $+29 \mathrm{~B}-42 \mathrm{~B},+29 \mathrm{C}-42 \mathrm{C},+50,+51,+52,+53,+54$, +55, 62
*Any or all of these courses combined: maximum credit, 8 units.

+ Any or all of these PE Activity courses combined; maximum credit, 4 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 4A, 4B, 4C: maximum credit,
1 series. Deduct credit for duplication of topics.
Political Science 1, 2/2H, 5, 13, 24
Psychology 2/2H, 5, 15, 16, 25, 33, 36, 38, 39, *42
*42 combined with Math 11/42 and Decision Science 23:
maximum credit, 1 course.
Russian 1, 2, 3, 4
Sociology 1A, 1B, 2, 10, 14
Spanish 1, 2, *3, *3NS,+4,+4NS, 5, 6, 7, 8
*3 and 3NS combined: maximum credit, 1 course
+ 4 and 4NS combined: maximum credit, 1 course
Special Studies \#47
\#Variable topics; evaluation completed by individual campuses after admission
Speech 1, *4, 8, 12,*25
*4 and 25 combined: maximum credit, 1 course.
Swahili 1, 2
Theatre Arts $12,15 \mathrm{C}, 24,25,26,28,30,31,32,35,36$, *41, *42, 43, 44
*41 and 42 combined: maximum credit, 1 course.
Women's Studies 10, 24, 30, 36, 41, 47

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.

Honor Course Credit Limitation-duplicate credit will not be awarded for both the honors and regular versions of a course. Credit will only be awarded to the first course completed with a grade of "C" or better.

## Intersegmental General Education Transfer Curriculum (IGETC) to CSU and UC

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 each from 1A, 1B, and 1C (nine semester units minimum); UC-Two courses required, one each from Group 1A and $1 B$ (six semester units minimum).

## 1A English Composition

One course, three semester units.
**English 1A/1AH, Reading and Composition..... 4
1B Critical Thinking - English Composition

One course, three semester units.

**English 3/3H, Critical Reading and Writing .... 3

## 1C 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 required (three semester units minimum)
Computer Science 26, Descrete Mathematics for Computer Science ..... 4
Decision Science 21, Finite Mathematics .....  3
Math 4B, Precalculus ..... 4
Math 5A, Mathematical Analysis I .....  5
Math 5B, Mathematical Analysis II .....  .4
Math 6, Mathematical Analysis III .....  4
**Math 10A, Structure and Concepts in Mathematics ..... 3
** Math 10B, Structure and Concepts in Mathematics II .....  3
** Math 11, Elementary Statistics .....  4
Math 21, Finite Mathematics ..... 3
Math 26, Elementary Linear Algebra ..... 3
**Math 42, Statistics for the Behavioral Sciences .....  4
**Psychology 42, Statistics for the Behavioral Sciences ..... 4
Area 3 - Arts and HumanitiesAt least three courses with at least one from Arts and onefrom Humanities (nine semester units minimum).
3A ArtsAfrican-American St 3, African-American Art... 3African-American St 13, African-AmericanMusic from Pre-Slavery to 1940 3
African-American St 15, African-American Music from 1940 to Present .....  3
American Indian St 35, American Indian Art...
Art 2, Art Appreciation ..... 3
** Art 5/5H, 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
Chicano-Latino St 20, Chicano Art ..... 3
Dance 30, Dance Appreciation ..... 3
Film 6, Film Genres ..... 3
** Music 3, Music Fundamentals .....  3
Music 12, Music Appreciation .....  3

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Music 13, History of Music. .....  3
Music 14, Opera Appreciation .....  3
Music 16, Jazz History and Appreciation .....  3
Theatre Arts 30, Theatre Appreciation .....  3
Theatre Arts 31, Theatre History and Dramatic Lit I .....  3
Theatre Arts 32, Theatre History and Dramatic Lit II .....  3
3B Humanities
African-American St 17, African-American Literature .....  3
American Sign Language 3, 4, Intermediate American Sign Language ..... 4-4
American Sign Language 7, Deaf History .....  3
American Sign Language 8, American Sign Language Literature/Folklore .....  3
Armenian 3, Intermediate Armenian .....  4
Chicano-Latino St 21, Chicano Literature .....  3
**English 1B/1BH, Intro to the Study of Literature .....  3
English 12, The Bible as Literature. .....  3
English 17, African-American Literature .....  3
English 36, Women in Literature .....  3
English 42, Classic Myths .....  3
English 44A, World Literature to the

$\qquad$Renaissance .
$\qquad$ 3
English 44B, World Literature Since the Renaissance .....  3
English 45, Contemporary World Literature .....  3
English 46A, English Literature to 1800 .....  3
English 46B, English Literature from 1800 to Present .....  3
English 47, Introduction to Shakespeare .....  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 Studies .....  .3
Film 2A, History of Cinema 1895-1960 .....  3
Film 2B, History of Cinema 1960-Present .....  3
Film 3, Film and Culture. .....  3
French 3, 4, Intermediate French ..... 4-4
German 3, 4, Intermediate German ..... 4-4
**History $1 / 1 \mathrm{H}$, Western Civilization to 1648. .....  3
** History 2/2H, Western Civilization Since 1648 .....  3
Humanities $10 / 10 \mathrm{H}$, Classical Humanities ..... 3
Humanities 11/11H, Modern Humanities .....  3
Linguistics 10, Intro to Language ..... 3
**Philosophy 1A/1AH, 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, 4NS, Spanish for Spanish Speakers ..... 4-4
Spanish 5, The Short Story: Mexico, Spain, and the U.S. .....  3
Spanish 6, The Short Story: Latin America .....  3
Spanish 7, Advanced Spanish: Comp and Grammar .....  3
Women's Studies 36, Women in Literature. .....  3
Area 4 - Social and Behavioral Sciences
At least three courses from at least two different disci- plines (nine semester units minimum).
4A Anthropology and Archaeology
**Anthropology 2/2H, Cultural Anthropology ..... 3Anthropology 3, Intro to Archaeologyand Prehistory3
4B Economics
**Economics 1A/1AH, Intro to Macroeconomics 3
Economics 1B/1BH, Intro to Microeconomics.. 3
4 C Ethnic Studies
African-American St 1, African-American Culture ..... 3
American Indian St 31, American Indian Culture ..... 3
American Indian St 34, American Indian in Contemporary Society ..... 3
Asian-American St 1, Indo-Chinese Americans ..... 3
Chicano-Latino St 11, Intro to Chicano-Latino Studies ..... 3
Chicano-Latino St 12, Mexican American History ..... 3
4D Gender Studies
History 22, History of American Women .....  3
Women's St 10, Changing Roles of Women .....  3
Women's Studies 47, Introduction to Lesbian \& Gay Studies

$\qquad$
4E Geography
Geography 2, Cultural Geography

$\qquad$ .....  3
Geography 4A, 4B, World Geography ..... 3-3
Geography 20, Geography of California .....  3
4 F History
African-American St 4, African Civilization ..... 3
Chicano-Latino St 29, History of Mexico, Colonial to Contemporary Period .....  3
History 11, History of the United States to 1877 .....  3
History 12, History of the United States Since 1877 .....  3
History 15, History of the British Isles .....  3
History 22, History of American Women .....  3
History 29, History of Mexico, Colonial to Contemporary Period .....  3
4G Interdisciplinary, Social \& Behavioral Sciences
American St 10, American Pluralism: A Search for Common Ground in a Multicultural Society. .....  .3
Child Development 39, Child Development. .....  3
Psychology 39, Child Development .....  3
4H Political Science, Government \& Legal Institutions
Political Science 1, Modern Politics 3
Political Science $2 / 2 \mathrm{H}$, American Government .....  3
Political Science 5, Comparative Government .....  3
4I Psychology
Child Development 38, Lifespan Development .....  3
Child Development 39, Child Development. .....  .3
**Psychology 2/2H, General Psychology .....  3
Psychology 38, Lifespan Development .....  3
Psychology 39, Child Development .....  3
4J Sociology \& Criminology
Human Services 10, Introduction to Aging Studies .....  3
Sociology 1A, Intro to Sociology .....  3
Sociology 2, American Minority Groups. .....  3
Sociology 10, Introduction to Aging Studies .... .....  3
Area 5 - Physical and Biological SciencesAt least two courses, one Physical Science and oneBiological Science (seven to nine semester unitsminimum). One course must have a lab component(indicated by " $L$ ").
5A Physical Sciences
Astronomy 10(L), Basic Astronomy .....  3
** Chemistry $1 \mathrm{~A}(\mathrm{~L}), 1 \mathrm{~B}(\mathrm{~L})$, General Chemistry ..... 5-5
** Chemistry 3A(L), Intro General Chemistry. .....  4
Chemistry 8A, Elementary Organic Chemistry .....  3
Chemistry 28A/29A(L), Organic Chemistry ..... 3-2
Chemistry 28B/29B(L), Organic Chemistry ..... 3-2
** Geography 1, Physical Geography .....  3
** Geography 7(L), Physical Geography - Earth Surface .....  4
Geography 8(L), Physical Geography - Weather/Climate .....  4
Geology 1(L), Physical Geology .....  4
Geology 2, Historical Geology .....  3
Geology 4, Geology of California .....  3
Geology 5, Introduction to Oceanography .....  3
** Physical Science 11, Intro Physical Science .....  3
** Physics 2A(L), General Physics 1 .....  4
** Physics 2B(L), General Physics 2 .....  .4
** Physics $4 \mathrm{~A}(\mathrm{~L}), 4 \mathrm{~B}(\mathrm{~L}), 4 \mathrm{C}(\mathrm{L})$, Physics for Scientists and Engineers ..... 4-4-4
5B Biological Sciences
** Biology $1 / 1 \mathrm{H}(\mathrm{L})$, Principles of Biology .....  4
Biology 3(L), Introduction to Life Science. .....  4
Biology 4(L), Principles of Zoology .....  5
Biology 5(L), Human Biology .....  4
Biology 6(L), Principles of Botany. .....  5
Biology 20(L), Human Anatomy .....  4
Biology 22(L), Human Physiology. .....  5
Biology 31(L), Microbiology. .....  5

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## Area 6 - UC Requirement in Language Other than English <br> Proficiency equivalent to two years of high school study in the same language with "C" or better grades (at Fresno City College one course required if not met by bigh school foreign language).

African American Studies 21, Beginning Swahili. .....  4
African American Studies 22, High-Beginning Swahili ..... 4
American Sign Language 1, Beginning American Sign Language .....  4
American Sign Language 2, High-Beginning American Sign Language .....  4
American Sign Language 3, Intermediate American Sign Language .....  4
American Sign Language 4, High-Intermediate American Sign Language .....  4
Armenian 1, Beginning Armenian .....  4
Armenian 2, High-Beginning Armenian .....  4
Armenian 3, Intermediate Armenian .....  4
Chinese 1, Beginning Chinese .....  4
Chinese 2, High-Beginning Chinese .....  4
French 1, Beginning French .....  .4
French 2, High-Beginning French .....  4
French 3, Intermediate French ..... 4
French 4, High-Beginning French .....  4
German 1, Beginning German .....  4
German 2, High-Beginning German .....  4
German 3, Intermediate German .....  4
German 4, High-Beginning German .....  4
Hmong 1, Beginning Hmong .....  4
Hmong 2, High-Beginning Hmong .....  4
Japanese 1, Beginning Japanese .....  4
Japanese 2, High-Beginning Japanese .....  4
Russian 1, Beginning Russian .....  4
Russian 2, High-Beginning Russian .....  4
Russian 3, Intermediate Russian .....  4
Russian 4, High-Intermediate Russian ..... 4
Spanish 1, Beginning Spanish .....  4
Spanish 2, High-Beginning Spanish ..... 4
**Spanish 3, Intermediate Spanish ..... 4
**Spanish 3NS, Spanish for Spanish Speakers .....  4
**Spanish 4, High-Intermediate Spanish .....  4
**Spanish 4NS, Spanish for Spanish Speakers ..... 4
Spanish 7, Advanced Spanish: Composition andGrammar 3
Swahili 1, Beginning Swahili ..... 4
Swahili 2, High-Beginning Swahili .....  4
Area 7 - CSU Graduation Requirement in U.S. History, Constitution, and American Ideals
One course from each group (six semester units minimum). This requirement is NOT part of IGETC, but may be completed prior to transfer. Courses used to meet this requirement MAY NOT be used to satisfy requirements for the IGETC.
Group 1:
Political Science 2, 2H, American Government .....  3
Group 2:
History 11, 12, History of the United States to 1877 or
History of the United States Since 1877 ..... 3
Notes: 1. Courses may be listed in more than one area, butcan be certified in only one area except for courses inLanguages other than English, which can be certifiedin both areas $3 B$ and 6 A.
2. ** Indicates that transfer credit may be limited by either UC or CSU or both. Please consult with a counselor for additional information.
3. All courses listed for IGETC are approved for CSU GE and are transferable to $U C$.
4. 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.
5. This pattern should not be used for the following majors at the University of California campuses listed. It either will not be accepted or contains more courses than are required. Use the 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.

The following information is taken from the University of California's website at www. universityofcalifornia.edu:

## U.C. Berkeley

IGETC is acceptable for all majors in the College of Letters and Science, and it is highly recommended. The Haas School of Business and the Colleges of Engineering, Environmental Design and Chemistry have extensive, prescribed major prerequisites. In general, IGETC is not appropriate preparation for majors in these colleges. Although IGETC satisfies breadth requirements for most majors in the College of Natural Resources, specific lower division major requirements must still be satisfied; check with the college or visit the ASSIST website for more information.

## U.C. Davis

Anyone preparing for a bachelor of science degree is advised not to pursue the IGETC, and instead to concentrate on major-specific preparatory work.

## U.C. Irvine

All schools accept the IGETC. However, selection by the campus is based on demonstrated academic achievement and preparation for the intended major.

## U.C. Los Angeles

The Henry Samueli School of Engineering and Applied Science does not accept the IGETC.

## U.C. Merced

The School of Engineering and the School of Natural Sciences do not recommend the IGETC.

## U.C. Riverside

The Marlan and Rosemary Bourns College of Engineering and the College of Natural and Agricultural Sciences do not accept the IGETC, although any courses taken to satisfy the IGETC may be applied toward the college's breadth pattern. The College of Humanities, Arts, and Social Sciences accepts the IGETC.

## U.C. San Diego

The IGETC is accepted by John Muir, Earl Warren, Sixth and Thurgood Marshall colleges only. Students completing the IGETC are welcomed at Eleanor Roosevelt and Revelle colleges; however, they must fulfill the specific general education requirements of those colleges. At UCSD, all majors are available to students in each college, so students who choose the IGETC will not be restricted in their choice of major as a result.

## U.C. Santa Barbara

Transfers into the College of Letters and Science and the College of Creative Studies may use IGETC to substitute for general education requirements. Transfers into the College of Engineering may also use IGETC to substitute for general education requirements. In addition to general education, all students in the College of Engineering are required to complete a depth requirement. Students who wish to satisfy the depth requirement prior to transfer must complete a yearlong sequence in the history of world civilization, history of Western civilization, history of the United States, history of Western philosophy or history of Western art. Students may want to choose courses for the IGETC that will concurrently satisfy the depth requirement. Students may also complete the depth requirement with upper division coursework after transferring. Note that students planning to transfer into a major in engineering, computer science or the biological or physical sciences must be careful to complete lower division major prerequisites to ensure competitiveness and make normal, timely progress through the major.

## U.C. Santa Cruz

The IGETC is not appropriate preparation for any major in the Jack Baskin School of Engineering or the Division of Physical and Biological Sciences. This is because the IGETC does not provide students with enough mathematics and science courses to complete their majors in two years after transferring.

## Transfer Requirements of Private/Independent and Out-of-State Colleges and Universities

Transfer requirements of the private/independent and out-of-state colleges and universities differ from one institution to another. Students should acquaint themselves with the current catalog of the college to which they plan to transfer for admission, general education, and major preparation information. It is up to the receiving institution to determine application of credit. The Fresno City College Transfer Center has a library of catalogs for student use as well as computers with Internet access for college websites and catalogs online. See a counselor for assistance.

# ADMINISTRATIVE POLICIES 

## Student Conduct Standards

Students are expected to conduct themselves as responsible citizens 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. 5500) 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.

## State Center Community College District (SCCCD) 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


The Dean's Medallion of Excellence Award is the highest award bestowed each year on students who bave demonstrated academic success, community service and student leadership while at Fresno City 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 5520 which defines discipline procedures, apply to all students who are enrolled in courses offered by either college of the State Center Community College District. Any student will be subject to discipline who, in any way:

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

## Student Assembly

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

## Exercise of Free Expression

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

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

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

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

## Student Protests and Demonstrations

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.

## Computer/Network Equipment Use Policy

Every State Center Community College District (SCCCD) student is permitted to use a District-owned computer/network. As a condition of this use, each student agrees to:

- use the computer/network for educational purposes only and not for any commercial purpose or financial gain;
- use the computer and software in an ethical manner; this means he/she will respect the security of the District's computer system and will not illegally gain access to any network, hardware or software;
- not take or copy any copyrighted or patented software or any part of such software; further, he/she agrees not to install/uninstall any program or software, including shareware programs, on the computer;
- not use the electronic mail system for any illegal or illicit purpose, including solicitation; the District reserves the right to monitor all computer activities on its computers; the student agrees to abide by the rules of any other computer system that he/she may contact through the Internet;
- not transmit any communication in which the meaning of the message or its transmission or distribution would violate any applicable law or regulation or be offensive to the recipient or recipients; and
- not search, view or download pornographic material through any means.
It is understood that information, programs or data a student obtains from the Internet are used at his/her own risk. He/she is responsible for any damage caused by malicious programs, commonly known as viruses, received from the Internet.

Each student is expected to abide by the District's Acceptable Use Policy (http://www.scced.com/is/district_use.html). The District is the sole determiner of the interpretation and application of the Acceptable Use Policy. It is understood that if a student violates any of the above rules, he/she is subject to removal from the computer facility as well as discipline as a student.

## No Smoking in Campus Buildings

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

## Drug Abuse Policy

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

## 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.

## Authority and Disciplinary Actions

A student enrolled in courses offered by any college or center 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 5520, for any of the following causes which must be related to college attendance or activity:

1. Causing, attempting to cause, or threatening to cause physical injury to another person.
2. Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permission to possess the item from the Vice President of Student Services.
3. Unlawful possession, use, sale, offering to sell or furnish, furnishing, or being under the influence of, any controlled substance listed in California Health

## Administrative Policies

and Safety Code Section 11053 et seq., an alcoholic beverage, or an intoxicant of any kind or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia as defined in California Health and Safety Code Section 11014.5.
4. Committing or attempting to commit robbery or extortion, or gambling.
5. Causing or attempting to cause damage to District property or to private property on campus.
6. Stealing or attempting to steal District property or private property on campus or knowingly receiving stolen District property or private property on campus.
Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the college or the District.
Committing sexual harassment as defined by law or by District policies and procedures.
Engaging in harassing or discriminatory behavior based on race, sex, religion, age, national origin, disability, or any other status protected by law.
10. Willful misconduct that results in injury or death to a student or to District personnel or which results in cutting, defacing, or other damage to any real or personal property owned by the District or on campus.
11. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, the open and persistent defiance of the authority of, or persistent abuse of, college personnel.
12. Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty as defined by the Office of Instruction.
13. Dishonesty, forgery, alteration or misuse of District documents, records or identification, or knowingly furnishing false information to the District.
14. Unauthorized entry upon or use of District facilities.
15. Lewd, indecent, or obscene conduct, or expression on District-owned or controlled property, or at District sponsored or supervised functions.
16. Engaging in expression which is obscene, libelous, or slanderous or which so incites students as to create a clear and present danger of the commission of unlawful acts on District premises.
17. Violation of lawful District regulations or the substantial disruption of the orderly operation of the District.
18. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.

Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to digital or electronic recording or handwritten or typewritten class notes except as permitted by any District policy or administrative procedure.
20. Other good cause as shown.

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.

## Student Rights

Student rights are protected by federal and state laws, and by policies established by the trustees of the State Center Community College District. It is therefore essential for the protection of students' rights that procedures be established and followed that would identify violations of student conduct standards and the resolutions of such violations. Students have a right to an oral or written notice (reasons for disciplinary action), an opportunity for a review, and a decision given orally or in writing. For more information, contact the Vice President of Students Office. (Board Policy 5520, Administrative Regulation 5520)

## Removal from Class by Instructor

Fresno City College's Student Code of Conduct Policy (Board Policy 5520 and Educational Code 76032) authorizes an instructor to remove a disruptive student from his or her class for the day of the removal and the next class meeting. The instructor shall immediately report the removal to the Vice President of Students. During the period of removal, a student shall not be returned to the class from which he or she was removed without the concurrence of the instructor of the class.

## Grievance Policy for Students

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 Vice President of Admissions and Records, Director of Financial Aid, Vice President of Instruction, Vice President of Students, or Vice President of Administative Services, 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 Vice President of Admissions and Records, in the office of the Vice President of Students, in the office of any 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.

## Rights and Responsibilities

## Open Enrollment

It is the policy of this District that, unless specifically exempted by statute or regulation, every course, section, or class, 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 Subchapter 1, Chapter 6, Division 6, Title 5 of the California Code of Regulations, commencing with Section 55000.

## Student Enrollment Responsibilities

It is the responsibility of all students to be aware of and observe all college policies regarding class enrollment and attendance, including dropping classes.

## Parking Regulations

Student vehicles must display a State Center Community College District parking permit to park in campus parking lots.

Students are required 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 College Business Office, Administration Building, room 109.

## 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:

Vice President of Students<br>Fresno City College<br>1101 E. University Avenue<br>Fresno, CA 93741<br>(559) 442-4600, ext. 8595

The college recognizes its obligation to provide overall program accessibility throughout the college for handicapped persons. Contact Vice President 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<br>U.S. Department of Education<br>221 Main Street, Suite 1020<br>San Francisco, CA 94105

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

Fresno City College no discrimina en base a raza, color, nacionalidad de origen, discapacidad, edad u orientación sexual en cualquiera de sus políticas, procedimientos ó prácticas, en cumplimiento con el Título VI de la Ley de Derechos Civiles de 1964 (referente a la raza, color y nacionalidad de origen), Título IX de las Enmiendas de Educación de 1972 (referentes al sexo), Sección 504 de la Ley de Rehabilitación de 1973 (referente a la discapacidad), la Ley de Americanos con Discapacidades y la Ley de Discriminación por Edad de 1975 (referente a la edad) y la Ley Estatal de California. Esta pólítica de no-discriminación cubre la admisión y acceso a, y tratamiento y empleo de los programas y actividades de Fresno City College, incluyendo la educación vocacional. Puede solicitar información con respecto a las políticas de igualdad de oportunidades, poner una queja o solicitar una copia del procedimiento para quejas concernientes a discriminación dirigiéndose a :

Vicepresidente de Estudiantes
Fresno City College
1101 E. University Avenue
Fresno, CA 93741
(559) 442-4600, ext. 8595

Fresno City College reconoce su obligación de proveer accesibilidad total al programa a través de Fresno City College para personas discapacitadas. Contacte al Vicepresidente de Estudiantes para obtener información con respecto a la existencia y localización de los servicios, actividades e instalaciones a que tienen acceso y pueden ser usadas por las personas discapacitadas.

La falta de habilidad en el idioma Inglés no deberá ser un obstáculo a la admisión y participación en los programas de educación vocacional de Fresno City College.

Las preguntas con respecto a las leyes Federales y reglamentos en referencia a la no-discriminación en la educación, o el cumplimiento del Distrito en dichas previsiones pueden dirigirse también a :

Oficina de los Derechos Civiles<br>Departamento de Educación de E.U.<br>221 Main Street, Suite 1020<br>San Francisco, CA 94105



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

Tsab Cai Tsis Pub Muaj Kev Ntxub-ntxaug Thiab Tej Uas Yuav Tsum Tau Ua

Fresno City College yuav tsis pub muaj kev ntxub ntxaug rau tej kev sib txawv ntawm haiv neeg, ntawm nqaij-tawv, tuaj txawv tej chaws tuaj, poj-niam, txiv-neej, neeg xiam oob khab, laus-hluas, los yog qhov kev xaiv ntawm tej kev nkauj nraug li cas nyob rau hauv nws txoj cai, kev khiav dej-num, los yog kev coj, kom raws li txoj cai Title VI ntawm Civil Rights Act ntawm 1964 (uas hais txog ntawm haiv neeg, nqaij-tawv, thiab tuaj txawv teb chaws tuaj), Title IX ntawm qhov Education Amendments ntawm xyoo 1972 (hais txog poj niam-txiv neej), Section 504 ntawm Rehabilitation Act ntawm xyoo 1973 (hais txog neeg xiam oob khab), qhov Americans with Disability Act thiab qhov Age Discrimination Act ntawm xyoo 1975 (hais txog laus-hluas), thiab Xeev California Txoj Cai. Tsab cai tsis pub muaj kev ntxub-ntxaug no muaj vaj-huam sib luag thiab ncaj ncees rau kev tuaj nkag kawm ntawv thiab kev ua hauj-lwm nyob hauv college tej programs thiab lwm yam rau txhua tus, nrog rau kev kawm hauj lwm nyob hauv tsev kawm ntawv. Yog xav paub txog txoj cai vaj-huam sib luag no, muaj kev tsis txaus siab los sis xav tau ib daim ntawv qhia txog txoj cai ntawm kev tawm suab txog tej kev tsis txaus siab thaum raug neeg ntxub ntxaug ntawd no, mus cuag tau rau:

## Vice President of Students <br> Fresno City College <br> 1101 E. University Avenue <br> Fresno, CA 93741 <br> (559) 442-4600, ext. 8595

Lub tsev kawm ntawv paub txog nws lub luag dej num hais tias yuav tsum tau muaj program nyob thoob plaws hauv tsev kawm ntawv rau cov neeg xiam oob khab. Hu rau Dean of Students, rau tej kev pab thiab tej chaw pab, uas muaj rau cov neeg xiam oob khab.

Tus ho tsis paub lus As-kiv zoo los yeej tsis muaj teeb meem li cas rau nws tuaj mus kawm ntawv thiab kawm hauj lwm nyob rau hauv tsev kawm ntawv nqib siab no li.

Yog xav paub txog Tsoom Fwv tej cai tswj txog qhov tsis pub muaj kev ntxub-ntxaug nyob rau hauv tej tsev kawm ntawv los yog saib lub District ntawd puas ua raws li txoj cai, mus cuag tau rau:

Office for Civil Rights
U.S. Department of Education

221 Main Street, Suite 1020
San Francisco, CA 94105

## 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 Vice President 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 5530.

A copy of the District sexual harassment policy and complaint procedures may be obtained from the Vice President of Students, Student Services building, upper level.

## Change of Address, Telephone Number, or E-mail Address

Students who have a change of address, telephone number or e-mail address are required to officially notify the college by clicking "Update Address, Email, Telephone" on WebAdvisor or submitting an "Address Change" form at www.fresnocitycollege.edu/forms-online.

## 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.

## Other Policies

Additional policies are included in the State Center Community College District policy manual. Manuals are on file and may be consulted in the Fresno City College Library, and the offices of the President, the Vice President of Instruction, the Vice President of Student Services, and the Vice President of Administrative Services.

## STUDENT SUPPORT SERVICES

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

## 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).


One of the many areas of study in the Social Sciences Division is Child Development. The FCC campusprovides a comprehensive Child Development Center where students gain valuable experience working with pre-school aged children. The center also provides quality child care to the community.

## 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.

## 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:

- financial assistance with child care, transportation, book loans and college fees
- academic advising and personal and career counseling
- referral for supportive services
- CalWORKs Work Study
- provision of initial school supplies

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

## 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 number.

## 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.

## 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 Department provides complete counseling and guidance services. Analyzing individual interests and abilities, making educational and career choices, improving study habits and skills, resolving personal problems, and adjusting to college life and providing an orientation for new students are among the services. Counselors also teach Counseling courses, 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.

The Counseling and Career Center is located on the upper level of the Student Services Building (telephone 442-8226).

## 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, and faculty. 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, individualized career advising and counseling, workshops and two computerbased career information systems. In addition, the Career Center maintains a library of career books, 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 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 career planning skills are essential. The Career Center is an excellent place to start gathering information and exploring possibilities for the future. Most services are free to current students. For more information, visit the Career Center or call 442-8291.

## 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 23 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:

- Transfer advising by counselors and university representatives;
- University of California Transfer Admission Guaranteed Programs for early admissions after completing a series of college preparatory courses to: UC Davis, UC Irvine, UC Merced, UC Riverside, UC San Diego, UC Santa Barbara, and UC Santa Cruz. 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 units-the University of California provides admission priority to students applying from California community colleges;
- Assistance with admission processes and transfer procedures including housing, scholarship/financial aid. General transfer information and Internet access to college resources;
- Sponsor tours and fieldtrips to various colleges and universities;
- Host annual Transfer Day in September;
- Offer transfer application workshops;
- Offer computer/Internet access to university applications and research.
For more information, visit the Transfer Center or call 442-8290.


## 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 counselor 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 medical 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. Special classes
2. On campus mobility assistance
3. Use of special equipment (i.e., tape recorders and adaptive software)
4. Alternate media production
5. Special parking permit
6. Priority registration
7. Interpreters for the deaf
8. Notetakers
9. Liaison/Referral with community agencies
10. Test taking accommodations

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.

## District Police

The District 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.

## Employment Resource Center

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 Employment Resource Center 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 Employment Resource Center located in the Learning Resources Center, LI-147. Employers may list job openings by calling 442-8294.

## Extended Learning Center-Reading, Writing and Math Lab

The Extended Learning Center has upper-division and graduate student tutors available to help with any reading and writing projects students will encounter at Fresno City College. The math lab will equally serve to help students solve mathematical problems and understand mathematical concepts with qualified tutors.

## 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 internships, 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.

## Financial Aid

## Financial Aid and Scholarships

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

- Federal PELL Grants
- Federal Work Study
- Federal Supplemental Educational Opportunity Grants
- Federal Direct Student Loans
- Federal Family Education Loans
- Boards of Governors Enrollment Fee Waiver
- Cal Grants
- Extended Opportunity Programs and Services (EOPS)
- Bureau of Indian Affairs Scholarships
- Other Institutional and Noninstitutional Scholarships
Expenses will vary with the type of housing, course of study, transportation, and other factors. Typical annual student expenses are outlined on the financial aid web page at www.fresnocitycollege.edu/financialaid/.
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.

## 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.

## 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 and must complete the required percentage of units attempted each semester per the Financial Aid Satisfactory Academic Progress Policy. 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 Com-


The nationally recognized student organization Phi Theta Kappa Honor Society has an active chapter at Fresno City College.
mittee 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.

## Ayuda Financiera

## Ayuda Financiera y Becas

Fresno City College provee ayuda financiera al mayor número posible de estudiantes a través de becas, subvenciones, préstamos y oportunidades de trabajo. Los siguientes programas están disponibles a estudiantes calificados:

- Subvenciones Federales PELL
- Estudio de Trabajo Federal
- Subvenciones Suplementarias Federales para la Oportunidad Educacional
- Préstamos Federales Directos para Estudiantes
- Enrolamiento en Renuncia de Honorarios de la Pensión de Gobernadores
- Subvenciones Cal (Cal Grant)
- Programas y Servicios de Oportunidad Extendidos (EOPS)
- Departamento de Becas en Asuntos Indios
- Otras becas Institucionales y no-Institucionales

Los gastos variarán de acuerdo al tipo de alojamiento, curso de estudio, transporte y otros factores. Los gastos anuales típicos del etudiante se señalan en la "Guía de Información para Ayuda Financiera del Consumidor", disponile en la Oficina de Ayuda Financiera, Edificio de Servicios Estudiantiles, oficina 201.

Las formas de solicitud e información acerca de la ayuda financiera y programas de beca están disponibles en la Oficina de Ayuda Financiera, Edificio de Servicios Estudiantiles, oficina 201.

Los estudiantes deberán presentar su solicitud antes de Marzo 2 de cada año previo al semestre otoñal si desean ser considerados para el programa Cal Grant. Aquellos estudiantes que presenten su solicitud para el semestre de otoño tendrán prioridad, si son elegibles, para otros programas etatales y federales si su solicitud es procesada y recibida en la Oficina de Ayuda Financiera antes de Abril 15 de cada año. Para mayor información, comuníquese al 442-8245.

## Reembolso de la Ayuda Financiera Federal Basado en el Retiro Total

Aquel estudiante, que se retire de todas sus clases dentro del $60 \%$ de un semestre, será revisado por la Oficina de Ayuda Financiera para determinar si el total o una parte de cualquier ayuda financiera federal recibida debe regresarse al gobierno federal.

## Avance Satisfactorio de la Ayuda Financiera

Para ser candidato elegible en el Título IV de los programas de ayuda financiera provistos por el Departamento de Educación de los E.U. y del Distrito Central Estatal de la Universidad Comunitaria, los estudiantes deberán mantener un avance académico satisfactorio en un programa que lleve a un grado o certificado en la universidad 0 transfiera a una institución de 4 años.

Los estudiantes deberán mantener el promedio mínimo de puntos por lo menos y deberán completar el porcentaje de unidades intentadas requerido en cada semestre por la Política de Ayuda Financiera de Avance Académico Satisfactorio. Los estudiantes no podrán continuar participando en programas de ayuda financiera después de haber completado un grado, 90 unidades de semestre de trabajo universitario. Adicionalmente, el estudiante no podrá ser apoyado económicamente por más de 30 unidades de trabajo de curso remedial. El estudiante deberá estar inscrito en un programa elegible en la Universidad de la Ciudad de Fresno, y el trabajo del curso remedial deberá ser necesario para que el estudiante aspire un programa postsecundario elegible.

Los estudiantes que hayan concluido programas de ayuda financiera 0 quienes no tengan permitido participar debido a alguna falla en demostrar o mantener un avance satisfactorio, pueden apelar esta acción por escrito. El Comité de Apelación de Ayuda Financiera revisará el progreso del estudiante y determinará si al estudiante se le permitirá o no su participación en programas de ayuda financiera. Las peticiones se encuentran disponibles en la Oficina de Ayuda Financiera.

## Nyiaj Pab Rau Kev Kawm Ntawv (Financial Aid)

## Financial Aid thiab Scholarships

Lub tsev kawm ntawv muaj kev pab nyiaj txiag rau tej tub kawm ntawv kom coob raws li coob tau los ntawm tej nyiaj scholarship, nyiaj pab dawb (grants) nyiaj txais
thiab kev ua haujlwm. Tej program rau cov tub kawm ntawv uas qualified yog muaj raws li nram no:

- Federal PELL Grants
- Federal Work Study
- Federal Supplemental Educational Opportunity Grants
- Federal Direct Student Loans
- Federal Family Education Loans
- Boards of Governors Enrollment Fee Waiver
- Cal Grants
- Extended Opportunity Programs thiab Services (EOPS)
- Bureau of Indian Affairs Scholarships
- Lwm lub Tsev Kawm Ntawm thiab Kooshaum tej nyiaj Scholarship
Kev siv nyiaj txiag tag ntau thiab tsawg yog los ntawm tej vaj tse yus nyob, saib yus kawm txog yam dabtsi, tej kev mus los, thiab lwm yam. Kev siv nyiaj txiag saib tas npaum li cas rau ib tug tub kawm ntawv ntawm ib xyoo ntawd muaj qhia rau hauv "Financial Aid Consumer Information Guide" muaj nyob rau hauv lub Financial Aid Office, Student Services Building, chav 201.

Tej ntawv application forms thiab lwm yam txog nyiaj pab rau kev kawm ntawv thiab tej scholarships programs muaj nyob ran ntawm lub Financial Aid Office, chav 201, Student Services Building.
Txhua tus tub kawm ntawv yuav tsum apply tsis pub dhau lub 3 hlis tim 2 ntawm txhua xyoo ua ntej lub fall semester yog leejtwg xav tau kev pab los ntawm Cal Grant Program. Cov tub kawm ntawv uas apply rau lub fall semester yuav raug txais kev pab ua ntej, yog tias lawv muaj feem (eligible), rau lwm qhov kev pab xws li hauv state thiab federal los nws yuav tau txais kev pab thiab yog tias nws daim application twb raug muab xyuas thiab lub Financial Aid Office twb tau txais rau lub 4 hlis tim 15 ntawm txhua xyoo. Yog xav paub ntxiv, hu rau 442-8245.

## Nyiaj Pab Los Ntawm Federal Yuav Raug Txiav Los Ntawm Cov Hoob Nws Kawm

Ib tug tub kawm ntawv twg, yog nws tawm (withdraws) hauv cov hoob uas nws kawm ntawd li $60 \%$ hauv ib lub semester twg, yuav raug tshawb xyuas los ntawm lub Financial Aid Office saib tag nrho los yog tej feem nyiaj pab los ntawm Federal ntawd puas yuav tsum tau raug txiav rov qab must rau Tsoom Fwv.

## Financial Aid Txoj Cai Kawm Ntawv Kom Zoo

Yuav kom tau txais kev pab nyiaj txiag ntawm Title IV rau cov tub kawm ntaws uas yog pab los ntawm lub U.S. Department of Education thiab lub State Center Community College District, tus tub kawm ntawv ntawd yuav tsum rau saib kawm kom tau zoo rau qhov program uas yuav pab kom nws tau daim degree los yog certificate hauv college los yog ho hloov mus rau ib lub tsev kawm ntawv uas muaj kawm mus txog 4 xyoo.

Tus tub kawm ntawv qhov GPA uas qis tshaj ntawd yuav tsum yog nyob rau qhov qis kawg (minimum) ntawm txoj cai kawm ntawv thiab kawm kom tau cov units ntawm txhua txhua hoob uas nws kawm nyob hauv txhua lub semester raws li txoj cai nws thiaj li yuav tau txais kev pab. Tus tub kawm ntawv ntawd yuav tsis muaj feem tau txais kev pab ntxiv yog tias nws kawm tau daim degree lawm los sis muaj txog 90 semester units hauv college lawm. Tsis tas li ntawd xwb, yog tias tus tub kawm ntawv ntawd ho muaj txog 30 units lawm tiam sis teem ho xav kawm cov hoob qub dua ntxiv (remedial course work) ces nws yuav tsis tau txais kev pab nyiaj txiag ntxiv lawm. Tus tub kawm ntawv ntawd yuav tsum tau mus rau npe kawm ntawv rau ib qhov program nyob rau hauv Fresno City College, thiab cov hoob uas nws rov qab kawm dua ntawd yuav tsum yog ib co hoob uas yuav coj tau mus rau cov tsev kawm ntawv qib siab tom qab uas nws kawm tas lawm.

Cov tub kawm ntawv uas luag ho tsis kam pab nyiaj txiag rau lawm los sis cov uas raug txwv tsis pub pab nyiaj txiag rau vim yog lawv kawm ntawv tsis tau zoo raws li txoj cai kawm ntawv muaj cai appeal qhov kev txwv tsis pab nyiaj txiag no los ntawm kev sau ib tsab ntawv mus rau lawv. Lub Financial Aid Appeal Committee yuav rov tshawb xyua tus tub kawm ntawv ntawd tej kev kawm ntawv dua saib tus tub kawm ntawv ntawd puas tsim nyog yuav rov qab tau txais kev pab nyiaj txiag dua. Tej ntawv (Petitions) no muaj nyob rau hauv lub Financial Aid Office.

## 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.

## 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.


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.

Health services available to Fresno City College students include confidential health counseling, health education, screening tests, emergency first aid, assistance in obtaining medical care, limited immunizations and HIV and TB skin testing.

In addition to the above mentioned services, accident insurance coverage is available to students injured while on campus or at school-sponsored and supervised events. These services are supported by the $\$ 16^{*}$ health fee. Call 442-8268 for more information.

* Fees subject to change.


## 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.

## Learning Resources Center (LRC)

The college Learning Resources Center, located on the south side of the campus, houses all of the supplemental learning resources for faculty and students. The LRC includes the Library, Media Center, Tutorial Center, Student Success Computer Lab, Disabled Students Programs and Services High Tech Computer Lab, and a distance learning classroom. Additionally, the Teaching and Learning Center, Assessment Center, and the Employment Resource Center are housed in the LRC.

## Computer Lab

The Student Success Computer Lab offers all currently enrolled students free access to over 70 computers, many designed to meet the needs of disabled students, all in a warm, welcoming environment. Tutors are available at all times to assist students.

All computers have Internet access and are networked to printers. All stations have a variety of software and specialty programs installed designed to support student instruction. Computers are available on a first come, first served basis.

For more information, call 442-8208.

## Library

The library includes a 270 -seat reference and research room, a 100 -seat periodicals room plus the 150 -seat reading and stack area. The Library houses more than 90,000 volumes and regularly receives over 300 periodicals and newspapers in hard copy and 14 electronic databases. 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. Some audiovisual materials can be circulated outside of the library.

For information, call 442-8205.

## Media Center

The Media Center houses the director of technology's office, instructional media services, director of academic computing, computer support personnel, and the technical support help desk.

Instructional media services include equipment circulation, graphic arts, media duplication, and equipment check out, storage, and repair. Technical support services include maintenance, repair, and installation of hardware and software for both instruction and administrative functions throughout the campus.

## Tutorial Services

The Student Success Tutorial Center offers all students on campus free learning assistance in all subject areas and basic skills. The center provides a comfortable and encouraging environment and carefully selected tutors that assist students in achieving their academic goals.
All tutoring is on a drop-in basis with convenient hours, including nights and weekends. Frequently requested subjects include all levels of math, statistics, physics, accounting, chemistry, biology, computer science, Spanish, any writing assignment, and many more. Tutoring schedules vary - check for availability with the Tutorial Center receptionist.
For more information, call 442-8209.

## 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.

## 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:

- Adjustment to college life
- Depression and anxiety
- Relationship and communication skills
- Stress and anger management
- Mental illness
- Substance abuse
- Eating disorders


## 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.

## Special Student Programs

## 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 mentoring by professionals from the community. Students participate in the program for two consecutive semesters. The program consists of English 125, English 126, and Counseling 50 the first semester and English 1A and Counseling 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. For information call 442-4600, ext. 8623.

## Strengthening Young Men by Academic Achievement (SYMBAA)

The SYMBAA program assists African American male students in achieving success through a coordinated program of courses and support. The program develops work habits and study skills, provides the education tools to be successful, and provides the opportunity to participate in 240-1080 hours of community service. At the end of the program, students will have completed 60 units of college credit and graduate or be ready to transfer to a four-year college or university.

## 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 Counseling 47A in the fall semester and English 1A and Counseling 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: graciela.ramirez@ fresnocitycollege.edu.

## 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.

## TRIO Programs

In commitment to providing educational opportunity for all citizens, Fresno City College has been awarded three programs fully funded by the U.S. Department of Education TRIO programs. These programs assist low-income, first generation students to enter college, graduate and move on to participate more fully and rewardingly in America's economic and social life. The two Upward Bound programs and the Educational Talent Search (ETS) program serve high school students to prepare them for post-secondary education. The forth TRIO program, Student Support Services Program (SSSP), serves college students at FCC.

## Educational Talent Search (ETS)

The FCC ETS program is a pre-college TRIO program which serves six area high schools. ETS is designed to assist low income, first generation students prepare for post secondary education. Through information, workshops and activities ETS provides assistance in acquiring academic skills and motivation to succeed in high school and transition into college. ETS program office is located in ST-111.

## Student Support Services Program (SSSP)

SSSP serves first generation, low income and disabled students to assure retention, graduation and/or transfer to a four year college in a timely manner. SSSP provides 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 FCC Upward Bound program is an intensive pre-college enrichment program designed to help first generation, economically disadvantaged high-school students improve their academic performance, and prepare for college. The long term goal is to pursue careers that require a bachelors' degree or higher. The program provides tutorial and instructional sessions conducted at partnering high schools. Components consist of academic year tutoring held at high school campuses, FCC Saturday Empowerment Sessions, FCC Summer School, both held on the FCC campus, and community Summer Job Shadow. Upward Bound program office is located in ST-111.

## STUDENT ACTIVITIES


#### Abstract

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 Gamma Sigma (AGS)
- Alpha Omega
- American Institute of Architects (AIA)
- American Sign Language Club (ASL)
- Amnesty International
- Anime Club
- Anthropology Club
- Asian American Club
- Biblical Friends Club
- Bonsai Club
- Campus Crusade
- Chess Club
- Delta Psi Omega
- Desi Club
- Diversity Club
- Grupo Folklórico de FCC
- Hmong Student Club
- Human Services Alliance
- Lambda Alpha Epsilon (LAE)
- Latin American Student Organization (L.A.S.O.)
- Latter-Day Saint Student Association
- M.E.Ch.A. (Movimento Estudiantil Chicanos de Aztlan)
- Native American Indian Student Association (NAISA)
- Pan African Student Union (PASU)
- Phi Theta Kappa
- Science Club
- Ski and Snowboard Club
- Student Nurses' Association
- Student Paralegal Association
- Teachers of Tomorrow


## 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 fulltime 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, badminton 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, and competes in the Coast Conference for Women's Badminton.

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.


There are 19 inter-collegiate athletic teams at FCC in which both men and women can participate as student athletes.

## Publications

## About Ourselves

About Ourselves is an annual publication featuring exceptional student writing sponsored by faculty in the Preparatory English Department. To be eligible for publication, you must be a student in one of the Developmental or Preparatory English classes.

## The Ram's Tale

The Ram's Tale is an annual literary and arts journal that publishes Fresno City College student poetry, fiction, non-fiction prose, photography, and art work. Interested students may contact the Humanities Division Office.

## The Rampage

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

The Rampage is an award-winning newspaper published bi-weekly at Fresno City College by students of the college's journalism courses. The Rampage is a member of the Journalism Association of Community Colleges, an organization that has acknowledged the newspaper's "general excellence" in recent years, along with recognizing individual students' contributions with awards in numerous categories. Former students of the college's journalism program have transferred to various universities and many currently work in newsrooms throughout the nation.

## Forensics

Fresno City College offers instruction and travel in competitive speech and debate. The college's forensics team traditionally ranks in the top ten among all colleges in the United States, both four-year and community colleges. Five Fresno City College teams have been named national champions. Students compete in a variety of debate and individual events. Team members travel to tournaments throughout the western United States. Students may earn units for participation in the forensics program by enrolling in Speech 26. For more information, contact the Fine, Performing, and Communication Arts Division Office.

## Model United Nations

The Model United Nations program trains students in the skills of real-world diplomacy, and competes in college level conferences against students from two- and four-year colleges. Delegates act as diplomats from UN member
states, negotiating with students representing other countries, to advance their nations' agendas. Delegates must write clearly, think critically, bargain creatively, and speak passionately about their ideas, often while representing countries whose policies they personally oppose. Delegates can also earn credit by enrolling in Political Science 25: Model United Nations. Numerous FCC students have won awards for their work, and program veterans have transferred to numerous California State University and University of California campuses, as well as private universities like George Washington University and Brown University. For more information, contact the Social Science Division in SO 123 or call 442-8210.

## 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.


The Fine, Performing and Communication Arts Division, encourages students to complete courses in both performance and technical theatre studies. Each academic year there are four major plays, two dance performances, two opera workshop productions and various student concerts and recitals.


## Drama

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

## Theatre Arts and Dance

Theatre Arts and Dance students have the opportunity to participate in four major productions, two dance concerts, and the very popular New Wrinkles Senior Citizens Showcase each year. All of the productions are staged in the Fresno City College Theatre, which includes a 430 -seat main stage and a lab theatre with flexible seating for up to 100 .

In addition to regular course work, the department annually participates in the Kennedy Center /American College Theatre Festival and The American Dance Theatre Festival. The department is also active with United States Institute of Theatre Technology. Each spring semester students can participate in the Semester in England Program. In the summer, students have the opportunity to travel for one week to the Ashland Oregon Shakespearean Festival.

## SPECIAL AREAS OF STUDY

## Allied Health

The Health Sciences Division offers courses for fulfilling requirements in a number of occupational programs; such as, dental hygiene, health information technology, medical assistant-clinician, radiologic technology, registered nursing, respiratory care practitioner, and surgical technology.

Students 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.

## 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.

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

## AUTOMOTIVE COLLISION REPAIR (ACRctc)

## 370 AUTOMOBILE COLLISION REPAIR AND PAINT

 REFINISHING5 lecture hours, 25 lab hours, ( 30 weeks), (900 total hours), (Repeats $=3$ ), (Formerly BFVTC 70 and ACRVTC 370)
Use of hand tools and power tools; gas welding and MIG welding, plasma cutter, metal shrinking, and plastic filler work; basic metal straightening, major body repairs, plastic panels repairs; basic frame and alignment repair; rust damage reconstruction sanding, masking, and introduction to spray painting, and advanced spray painting and refinishing.

## AUTOMOTIVE MECHANICS (AMCTC)

## 371 ENGINE REPAIR

10 lecture hours, 20 lab hours, (20 weeks), (600 total hours), (Repeats = 3), (Formerly AMVTC 71)
Preparation for ASE certification in engine repair. Practical and theoretical training in general engine diagnosis, cylinder heads, valve train, engine block, lubrication, and cooling systems.

## 372 ENGINE PERFORMANCE

10 lecture hours, 20 lab hours, (30 weeks), (900 total hours), (Repeats = 3), (Formerly AMVTC 72)
Basic skills necessary for an entry level job. Competencybased similar to those operations performed by automotive shop professionals. Prepares students to take the ASE certification tests.

## INDUSTRIAL TRAINING (ITCTC)

## 371 WAREHOUSE AND DISTRIBUTION CAREERS

6.65 lecture hours, 13.35 lab hours, (10
weeks), (Repeats $=3$ ), (Formerly ITVTC 71)
Forklift driving, basic computer operation, inventory control, cash register operation, strapping equipment and warehouse procedures.

## MAINTENANCE MECHANIC (MMCTC)

370 FUNDAMENTALS OF WELDING AND MACHINE SHOP
10 lecture hours, 20 lab hours, (10 weeks), (300
total hours), (Repeats = 3), (Formerly
MMVTC 70)
Basic gas, arc, and short arc (mild steel only). Precision 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.

## MANUFACTURING MECHANIC (MFGMCTC)

351 INTRODUCTION TO MANUFACTURING
0 units, 9 lecture hours, (1 week), (Pass/
No Pass), (Repeats $=3$ )
PREREQUISITE: None.
Career in manufacturing, local job market, pay scales; basic mechanical skills required throughout the industrial areas; safety and safe working environment will be stressed.

## 352A TRADE MATHEMATICS

0 units, 9 lecture hours, (2 weeks), (Pass/
No Pass), (Repeats = 3)
PREREQUISITE: None.
Industrial technology and trade-related math. The use of metric system of weights and measures, arithmetic application of integers and fractions, along with ruler and caliper readings commonly used in manufacturing trades.

## 352B PROGRAMMABLE CONTROLLERS

0 units, 2.25 lecture hours, 6.75 lab hours, (2 weeks), (Pass/No Pass), (Repeats = 3) PREREQUISITE: None.
An introduction to the equipment and peripheral devices used to interface with industrial controlling devices.

## 352C JOB PREPARATION

0 units, 2.25 lecture hours, 6.75 lab hours, (2 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 352B.

Preparing resumes, portfolios, and improving employ-ment-seeking skills.

## 352D TECHNICAL REPORT WRITING

0 units, 2.25 lecture hours, 6.75 lab hours,
(2 weeks), (Pass/No Pass), (Repeats $=3$ )
ADVISORY: Completion of Manufacturing Mechanic CTC 352B.

Identify and write various types of reports; analyze data, and record information that are associated with production work.

## 353A FLUID POWER FUNDAMENTALS

0 units, 9 lecture hours, (1 week), (Pass/
No Pass), (Repeats = 3)
PREREQUISITE: None.
Fundamentals of fluid power; physics principles pertaining to fluid power; various differences in hydraulics and pneumatics; characteristics of liquids and gases; how and why the fluid power industry was started.

## 353B PNEUMATIC FUNDAMENTALS

0 units, 2.25 lecture hours, 6.75 lab hours,
(2 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 353A.

Theory and application in the operation, service, and function of hydraulic systems including design and application of systems in industrial environments.

## 353C HYDRAULIC FUNDAMENTALS

0 units, 2.25 lecture hours, 6.75 lab hours,
(2 weeks), (Pass/No Pass), (Repeats $=3$ )
ADVISORY: Completion of Manufacturing Mechanic CTC 353A.

Theory and application in the operation, service, and function of hydraulic systems including design and application of systems in industrial environments.

## 354A POWER TRANSMISSION

0 units, 9 lecture hours, (1 week), (Pass/
No Pass), (Repeats = 3)
PREREQUISITE: None.
Study and application of power transmission through chains, belts, gear trains and augers.

## 354B WELDING FUNDAMENTALS

0 units, 1.5 lecture hours, 13.5 lab hours, (3 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 354A.

Basic metallurgy and properties of metals, oxyacetylene welding and cutting processes, arc welding, and safety within the work environment.

## 354C ELECTRICAL FUNDAMENTALS

0 units, 1.5 lecture hours, 13.5 lab hours,
(3 weeks), (Pass/No Pass), (Repeats $=3$ )
ADVISORY: Completion of Manufacturing Mechanic CTC 354A.

Introduction to the basics of electrical fundamentals, AC circuitry, as well as an instruction to motor control.

## 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. 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.

## Benefits of the Program

Developmental Education students enjoy the following benefits:

- Development of reading, writing, and computation skills sufficient to succeed in college-level instruction
- Curriculum tailored to the individual's particular needs so that courses taken are consistent with one's background and experience
- Development of beginning level of computer literacy
- Opportunity to review previously learned material
- Emphasis on helping students succeed at the college
- Specially trained teachers and counselors who understand and are sensitive to student worries and fears

Developmental Education Curriculum
ENGLISH WRITTEN EXPRESSION Units
English 250, Basic Writing................................................. 4
English 252, Writing Improvement .................................... 4
ENGLISH READING
English 260, Basic Reading.
.. 4
English 262, Reading Improvement................................... 4
MATHEMATICS
Math 260A-260D, Arithmetic Review ..............Maximum of 6
or Math 250, College Arithmetic..................................... 3
CONTENT AREA READING AND WRITING SKILL REINFORCEMENT
Biology 270, Biology Readiness.

## 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 W , 264 W , and 265 W offer instruction in grammar and writing. ESL 68 emphasizes reading skills and ESL 67 emphasizes writing skills.

## 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.

## Fire Academy

The Fire Academy curriculum is designed to prepare students for the occupation of Fire Fighting and provides extensive hands-on training required by many fire agencies for entry-level employment as a firefighter.

Throughout the Fire Academy, there is a strong emphasis on physical training and manipulative testing. Cadets are required to pass a comprehensive physical fitness exam to successfully complete the academy. The physical fitness training emphasizes endurance as well as strength and technique.

## Fresno City College Training Institute

Increasing the value of a company's workforce starts with the training or retraining of employees. The Fresno City College 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 Fresno City College Training Institute has training resources for any industry or business that wants to expand or locate here in the valley.

The Fresno City College 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 Fresno City College Training Institute, 256-0188, for more information.

## 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:

- Special sections of regular classes
- Specially selected, experienced, and highly qualified faculty
- Faculty mentors
- Registration, counseling, and transfer assistance
- Scholarships
- Priority acceptance at a University of California or California State University campus
- Opportunities to participate in cultural, social, and intellectually-stimulating activities
- Recognition on transcripts


## Requirements for Consideration of Acceptance

The following requirements apply for consideration for acceptance into the Honors Program:

- G.P.A. of 3.5 ( 4.00 scale), or
- Graduation from high school in the top 25 th percentile, or
- Combined scores of 1500 on the SAT or a composite score of 25 on the ACT, and
- Superior performance on an essay, and
- Three letters of recommendation, and
- Eligibility for English 1A, and
- Successful interview by the Honors Advisory Committee.
For details regarding the Honors Program, please refer to page 142 in this catalog or consult with Honors Program staff or the Dean of Instruction for Humanities at 442-8281.


## Police Academy

Fresno City College's State Center Regional Training Facility is a Public Safety Training Academy specializing in the training of public safety personnel. All police classes are certified by the Commission on Peace Officer Standards and Training. All correctional/probation classes are certified by the Board of Correction's Standards for Training for Corrections.

- Basic Police Academy-required in order to be hired as a full-time peace officer in California. The basic academy is offered in three different formats.
- Advanced Technical Courses-classes designed for in-service personnel already employed by a public safety agency.
- Correctional Academy and Probation Core Courses-offered in conjunction with local agencies and is required to work as a correctional officer, probation officer, or juvenile counselor for a local agency.
- Dispatcher Academy-designed for those who have been hired as, or want to become a complaint/dispatcher for a public safety agency. The dispatcher core course is offered once a year.
- Reserve Police Academy-designed for those who want to become reserve police officers or a reserve deputy sheriff. Training modules qualify the student to become a Level III, II, or I reserve officer.


## ROTC Studies-U.S. Army and U.S. Air Force

Fresno City College students may register for classes designed for those who wish to explore becoming an officer in the United States Army or the United States Air Force. 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 Fresno City College or the Aerospace Studies Department (278-2593) at California State University, Fresno for information on courses offered and class meeting times.

## Veterans Services

Veterans Services, located in the Student Services building, 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.

## 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, 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 30).

The Veterans Administration will be notified of any veteran who has been dismissed for not making satisfactory progress. For further information, contact Veterans Services, Student Services building, lower level, Room 108.
A veteran is entitled to receive pay up to the last day of attendance for a class for which a " $W$ " entry grade has been assigned. The VA will require that the money be paid back for such classes if paid after the last day of attendance.

A veteran must state a declared major for the VA 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 online through WebAdvisor or 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 occupational 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.

## Weekend College

The Weekend College program at Fresno City College allows for the completion of a Liberal Arts degree in 24 months completely on weekends! This program has been designed specifically for working adults who always wanted a college degree but their work schedules have not permitted the completion of a college degree during the day or traditional evening classes. The Weekend College program provides an educational opportunity to members of the community who are unable or find it inconvenient to attend school during the day or weekday, evening hours, work days, are on-call evenings, work out of town during the
week, or work split shifts. The motivated student will be able to complete this program of study in 24 months.

The program fulfills the Associate in Arts degree requirements and it is also a transfer program to the California State University system. It fulfills the lower division general education requirements. The program provides a broad base of educational experiences about aspects of the world which a major area of study may not include.
Note: Refer to a counselor and/or the program section in this catalog for additional information on the above programs.

## 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 Eight (8) 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 instructorcoordinator 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: No more than three credit hours per semester with a maximum total of six semester credit hours. May be repeated up to three times for not more than six units total.
2. Occupational/vocational work experience education:

No more than eight 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 8 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 55311 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:

- Accounting
- Air Conditioning
- Apprenticeship
- Anthropology
- Automotive Technology
- Business Administration
- Business \& Technology
- Child Development
- Computer Information Technology
- Construction (Carpentry)
- Criminology
- Drafting
- Educational Aide
- Educational Aide/Paraeducator
- Electrical Systems Technology
- Fashion Merchandising
- Food Service Management
- Graphic Communications
- Health Information Technology
- Human Services
- Library Skills
- Library Technology
- Marketing
- Medical Assisting
- Photography
- Recreation
- Registered Nursing
- Respiratory Care Practitioner
- Welding

Note: Actual class offerings vary by semester.

## AREAS OF STUDY BY DIVISION

## APPLIED TECHNOLOGY DIVISION

Administration of Justice/Police Academy Adult Correctional Officer Core

Basic Police Academy
Basic Reserve Academy
Basic Supervisors
Community Service Officer Juvenile Correctional Officer Core
Probation Core Course
Requalification Basic Course
Safety Dispatcher's Basic Course
Aerospace Studies
Air Conditioning
Air Conditioning Technology Overview
Commercial Air Conditioning, Heat-
ing, and Duct Systems
Digital Air Conditioning Controls
Industrial Refrigeration - CARO/EPA
Section 608
Mechanical and Electrical Systems
Applied Technology
Apprenticeship
Automotive and Heavy-duty Electrical
Automotive Mechanics
Body and Fender
Cook
Diesel and Heary-duty Mechanics
Electronics
Machine Shop
Parts Clerk
Roofing
Stationary Engineers
Welding
Architecture
Auto Collision Repair Technology
Automotive Technology
Auto Tech: GM ASEP
Building Safety and Code Administration
Career \& Technology Center
Auto Mechanics, Engine Repair Auto Mechanics, Engine Performance Auto Collision Repair

Industrial Training, Warehouse and Distribution Careers

Maintenance Mechanic
Manufacturing Mechanic
Computer Aided Drafting and Design
Computer Aided Manufacturing
Construction
Drafting
Electrical Systems Technology
Automation Control Technician
CISCO Certification
CISCO CCNP Preparation
Communications Technology
Control Systems
Electrical Systems Technology
Industrial Controls
Network Security
Networking/Computer Technician
Wireless Networks
Fire Technology
Basic Fire Academy
Emergency Medical Technician I
Emergency Medical Technician I
Refresher
Graphic Communications
Graphic Communications
Graphic Design Option
Web Design
Industrial Arts and Technology
Industrial Technology
Construction Option
Manufacturing Option
Interior Design
Military Science
Photography
Commercial Photography
Digital Photography
Fine Art Photography
Photojournalism
Professional Photography
Welding Technology
Metal Fabrication Option
Multi-Process

Pipe and Structural Steel Certificate Option
Welding Design and Fabrication

## BUSINESS DIVISION

Accounting
Business Accounting and Finance
Computerized Accounting
Full Charge Bookkeeper
Business Administration
Business Law
Entrepreneurial Ventures
Human Resources Management
Logistics and Distribution Management
Retail Management
Business \& Technology
Administrative Assistant Emphasis
Business Office Assistant
Clerical Emphasis
Computer Applications Software
Legal Administrative Assistant Emphasis
Medical Administrative Assistant
Emphasis
Medical Billing Assistant
Medical Billing Clerk Emphasis
Medical Receptionist Emphasis
Medical Transcriptionist Emphasis
Microsoft Word
Office Professional Emphasis
Word Processor Emphasis
Business Management
Business Finance and Accounting
Business Finance and Investments
Human Relations and Communications
Human Resources and Relations
Management and Supervision
Personal Finance and Investments
Small Business Management
Clerical Training (CTC)
Office Assistant
Computer Information Technology
Computer Information Systems
Data Entry Operator

## MCSE Core

MCSE Networking
Microcomputer Software Specialist
Microsoft Access
Microsoft Excel
Microsoft Office
Networking/Computer Technician
Preparation in Microsoft Office
System Support Specialist
Web Page Development Option
Webmaster
Decision Science
Fashion Merchandising (Marketing)
Marketing
Advertising
Call Center Telemarketing
Customer Relations Specialist
Personal Sales
Retailing
Paralegal
Legal Assistant-Clerk
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
Dentistry (Pre-Dentistry Transfer)
Health Information Technology
Health Science
Medical Assistant - Clinician
Medical Laboratory Technician
Medicine (Pre-Medicine Transfer)

## Areas of Study by Division

Nursing, Registered
Physical Education
Radiologic Technology
Recreation
Recreation Leadership
Respiratory Care
Surgical Technology
HUMANITIES DIVISION
English
Composition
Creative Writing
Critical Thinking
Literature
Reading
English as a Second Language (ESL)
Foreign Languages
American Sign Language
Armenian
Chinese
French
German
Hmong
Japanese
Russian
Spanish
Swahili
Humanities
Latin American Studies
Linguistics
Philosophy
MATHEMATICS, SCIENCE, AND
ENGINEERING DIVISION
Astronomy
Biology
Botany
Chemistry
Computer Science
Engineering
Environmental Studies
Geography, Physical
Geology
Mathematics
Natural Resources
Physical Science
Physics
SOCIAL SCIENCES DIVISION
African-American Studies
American Indian Studies
American Studies
Anthropology
Asian-American Studies
Chicano-Latino Studies
Child Development
Child Development Associate Teacher
Early Intervention Assistant
Family Child Care
Foster Care

Criminology
Correctional Science Option
Forensic Evidence Option
Law Enforcement Option
Pre-Academy Training Option
Culinary Arts
Advanced
Basic
Intermediate
Cultural Studies
Dietetic Service Supervision
Economics
Food Services
Food and Nutrition
Food Service Management
Geography, Cultural/World Regional
History
Home Economics/Consumer Education
Human Services
Alcohol and Drug Abuse Counseling Option
Social Work Option
Liberal Arts
Liberal Studies
Political Science
Psychology
Sociology
Teaching
Education Aide/Special Education

Teacher Aide
Teaching, Bilingual
Teaching, Elementary and Early
Childhood
Teaching, Liberal Studies
Teaching, Secondary
Women's Studies
OTHER
Adaptive Ornamental Horticulture Skills
Counseling
General Work Experience
Developmental Education Program
Developmental Services
Honors Studies
Individual Study
Laboratory Assistant
Library Skills
Library Technology
Special Studies
Supervised Tutoring

## Associate Degree and Certificate Programs

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| Adaptive Ornamental Horticulture Skills |  |  |  |  | - | 105 |
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| Administration of Justice, Basic Police Academy |  |  | - |  |  | 90 |
| Administration of Justice, Basic Reserve Academy |  |  | $\bullet$ |  |  | 90 |
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| Electrical Systems Technology, Industrial Controls |  |  |  |  | $\bullet$ | 135 |
| Electrical Systems Technology, Network Security |  |  | $\bullet$ |  |  | 135 |
| Electrical Systems Technology, Networking/Computer Technician |  | - | $\bullet$ |  |  | 135 |
| Electrical Systems Technology, Wireless Networks |  |  |  |  | - | 136 |
| Engineering |  | $\bullet$ |  |  |  | 136 |
| English | - |  |  |  |  | 136 |
| Fashion Merchandising (Marketing/Home Economics) |  | $\bullet$ | $\bullet$ |  |  | 137 |
| Fire Technology |  | $\bullet$ | $\bullet$ |  |  | 137 |
| Fire Technology, Basic Fire Academy |  |  | $\bullet$ |  |  | 91 |
| Fire Technology, Emergency Medical Technician |  |  |  |  | $\bullet$ | 90 |
| Fire Technology, Emergency Medical Technician Refresher |  |  |  |  | $\bullet$ | 90 |
| Food and Nutrition |  | - | - |  |  | 138 |
| Food and Nutrition, Dietary Aide |  |  |  |  | $\bullet$ | 138 |
| Food and Nutrition, Dietetic Service Supervisor |  |  | $\bullet$ |  |  | 138 |
| Food Service Management |  | $\bullet$ | $\bullet$ |  |  | 139 |
| Food Service Management, Child Nutrition |  |  | $\bullet$ |  |  | 139 |
| Graphic Communications |  | - | $\bullet$ |  |  | 140 |
| Graphic Communications, Graphic Design Option | - |  | $\bullet$ |  |  | 140 |
| Graphic Communications, Web Design |  |  | $\bullet$ |  |  | 140 |
| Health Information Technology |  | $\bullet$ |  |  |  | 141 |
| Home Economics, Consumer Education |  | $\bullet$ | $\bullet$ |  |  | 141 |

AA Associate in Arts
AS Associate in Science

CA Certificate of Achievement

CC Certificate of Completion

C Certificate

## Associate Degree and Certificate Programs



# FRESNO CITY COLLEGE MAJORS AND TRANSFER MAJORS WITH CODES 

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 achievement (CA), certificate of completion (CC) and certificate (C) programs are listed bere. Many of the programs listed are transfer programs as well as two-year programs.<br>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 |  |
| :---: | :---: |
| Accounting (AS/CA) | 2010 |
| Business Accounting and Finance (CC) | 2010 |
| Computerized Accounting (CA) | 2405 |
| Full Charge Bookkeeper (CA) | 2012 |
| Adaptive Ornamental Horticulture (C) | 1060 |
| Administration of Justice |  |
| Adult Correctional Officer Core (C) | 8941 |
| Basic Police Academy (CA) | 8920 |
| Basic Reserve Academy (CA) | 8921 |
| Basic Supervisors (C) | 8924 |
| Community Service Officer (C) | 8930 |
| Juvenile Correctional Officer Core (C) | 8943 |
| Probation Core Course (C) | 8942 |
| Requalification Basic Course (C) | 8925 |
| Safety Dispatcher's Basic Course (C) | 8970 |
| African-American Studies (AA) | 7640 |
| Agriculture Science |  |
| Agri-Business (T) | 102 T |
| Agricultural Engineering Technology (T) | 120T |
| Animal Science-Production Emphasis (T) | 105 T |
| Mechanized Agriculture-Production |  |
| Emphasis (T) | 121T |
| Plant Science-Production Emphasis (T) | 125T |
| Plant Science-Science Emphasis (T) | 126 T |
| Air Conditioning (AS/CA) | 8030 |
| Air Conditioning Technology Overview (CA) | 8033 |
| Commercial Air Conditioning, Heating, and Duct Systems (CA) | 8031 |
| Digital Air Conditioning Controls (CA) | 8034 |
| Industrial Refrigeration - CAR0/EPA |  |
| Section 608 (C) | 8231 |
| Mechanical and Electrical Systems (CA) | 8032 |
| American Indian Studies (AA) | 7680 |
| Anthropology (AA) | 7100 |
| Anthropology (T) | 710 T |
| Apprenticeship |  |
| Automotive and Heavy-duty Electrical (CC) | 9020 |
| Automotive Mechanics (C) | 9040 |
| Body and Fender (CA) | 9080 |
| Cook (C) | 9085 |
| Diesel and Heary-duty Mechanics (CA) | 9100 |
| Electronics (CA) | 9140 |
| Machine Shop (CA) | 9200 |
| Parts Clerk (CA) | 9260 |
| Roofing (CC) | 9300 |
| Stationary Engineers (C) | 9360 |
| Welding (CA) | 9380 |


| Archaeological Technician (CA) | 7120 |
| :---: | :---: |
| Architecture (AS/CA) | 6810 |
| Architecture (Pre-Architecture Transfer) | 681 T |
| Art |  |
| Art (T) | 520T |
| Art/Three-Dimensional (AA/CA) | 5202 |
| Art/Two-Dimensional (AA/CA) | 5201 |
| Astronomy (T) | 631 T |
| Automotive |  |
| Auto Collision Repair Technology (AS/CA) | 8071 |
| Automotive Technology (AS/CA) | 8051 |
| Auto Technology: GM ASEP (AS) | 805G |
| Bilingual/Cross Cultural (AA) | 7690 |
| Biological Studies (T) | 610 T |
| Botany (T) | 611 T |
| Building Safety and Code |  |
| Administration (AS/CA) | 8220 |
| Business Administration |  |
| Business Administration (AA) | 2050 |
| Business Administration (T) | 205 T |
| Business Law (CA) | 2053 |
| Entrepreneurial Ventures (C) | 2041 |
| Human Resources Management Assistant (C) | 2052 |
| Logistics and Distribution Management (CA) | 2054 |
| Retail Management (AS/CA) | 2051 |
| Business \& Technology |  |
| Administrative Assistant Emphasis (AS/CA/C) | 2212 |
| Business Office Assistant (CA) | 2201 |
| Clerical Emphasis (AS/CA) | 2061 |
| Computer Applications Software (C) | 2202 |
| Legal Administrative Assistant Emphasis $\text { ( } \mathrm{AS} / \mathrm{CA} / \mathrm{C})$ | 2102 |
| Medical Administrative Assistant |  |
| Emphasis (AS/CA/C) | 2381 |
| Medical Billing Assistant (CA) | 2242 |
| Medical Billing Clerk Emphasis (AS/CA/C) | 2421 |
| Medical Receptionist Emphasis (AS/CA/C) | 2241 |
| Medical Transcriptionist Emphasis (AS/CA/C) | 2371 |
| Microsoft Word (C) | 2323 |
| Office Professional Emphasis ( $\mathrm{A} / \mathrm{/CA} / \mathrm{C}$ ) | 2213 |
| Word Processor Emphasis (AS/CA/C) | 2322 |
| Business Management |  |
| Business Finance and Accounting (C) | 2031 |
| Business Finance and Investments (C) | 2271 |
| Business Management (AS/CA) | 2181 |
| Human Relations and Communications (C) | 2510 |
| Human Resources and Relations (C) | 2520 |
| Management and Supervision (C) | 2182 |
| Personal Finance and Investments (C) | 2032 |


| Small Business Management (C) | 2030 |
| :---: | :---: |
| Career \& Technology Center |  |
| Auto Mechanics, Engine Repair (CC) | 808 |
| Auto Mechanics, Engine Performance (CC) | 804 V |
| Auto Collision Repair (CC) | 807 V |
| Clerical Training, Office Assistant (CC) | 246 V |
| Industrial Training, Warehouse \& |  |
| Distribution Careers (CC) | 852V |
| Maintenance Mechanic (CC) | 806 V |
| Manufacturing Mechanic (CC) |  |
| Chemistry (T) | 632 T |
| Chicano-Latino Studies (AA) | 7661 |
| Child Development |  |
| Child Development (AS/CA) | 5615 |
| Child Development (T) | 561 T |
| Child Development Associate Teacher (CA) | 5614 |
| Early Intervention Assistant (AS, CA) | 5617 |
| Family Child Care (CA) | 5571 |
| Foster Care (CA) | 5580 |
| Communicative Disorders (T) | 546 T |
| Computer Aided Drafting and Design (AS/CA) 3051 |  |
| Computer Aided Manufacturing (AS/CA) | 8271 |
| Computer Information Technology |  |
| Computer Information Systems (AS) | 2701 |
| Data Entry Operator (CA) | 2713 |
| Information Systems \& Decision Science (T) | 260 T |
| MCSE Core (C) | 2721 |
| MCSE Networking (CA) | 2722 |
| Microcomputer Software Specialist (AS/CA) | 2705 |
| Microsoft Access (C) | 2707 |
| Microsoft Excel (C) | 2709 |
| Microsoft Office (C) | 2711 |
| Networking/Computer Technician (AS/CA) | 2720 |
| Preparation in Microsoft Office (CA) | 2710 |
| System Support Specialist (C) | 2723 |
| Web Page Development Option (C) | 2741 |
| Webmaster (AS/CA) | 2740 |
| Computer Science (T) | 692 T |
| Construction (AS/CA) | 8091 |
| Criminology |  |
| Criminology (AS/CA) | 7700 |
| Criminology (T) | 770 T |
| Criminology/Correctional Science Option (AS/CA/C) | 7731 |
| Criminology/Forensic Evidence Option (AS/CA) | 7732 |
| Criminology/Law Enforcement Option (AS/CA) | 8872 |
| Criminology/Pre-Academy Training Option (CA) | 8923 |
| Culinary Arts |  |
| Culinary Arts, Advanced (C) | 568 |

## 88 Majors and Transfers

| Culinary Arts, Basic (C) | 5684 |
| :---: | :---: |
| Culinary Arts, Intermediate (CA) | 5685 |
| Dance (AA) | 5390 |
| Dance ( T ) | 5397 |
| Dental Hygiene (AS) | 4580 |
| Dentistry (Pre-Dentistry Transfer) | 6827 |
| Electrical Systems Technology |  |
| Automation Control Technician (CA) | 8179 |
| CISCO Certification (CA) | 8174 |
| CISCO CCNP Preparation (CA) | 8165 |
| Communications Technology (CA) | 8175 |
| Control Systems (CA) | 8176 |
| Electrical Systems Technology (AS/CA) | 8171 |
| Industrial Controls (C) | 8180 |
| Network Security (CA) | 8177 |
| Networking/Computer Technician (AS/CA) | 8172 |
| Wireless Networks (C) | 8178 |
| Economics (T) | 720 T |
| Engineering (AS) | 3010 |
| Engineering (Pre-Engineering Transfer) | 3017 |
| English (AA) | 5300 |
| English/Literature (T) | 530 T |
| Fashion Merchandising |  |
| Marketing/Home Economics-Business Divisio (AS/CA) | 2151 |
| Fire Technology |  |
| Fire Technology (AS/CA) | 883A |
| Fire Technology/Basic Fire Academy (CA) | 883B |
| Emergency Medical Technician I (C) | 8842 |
| Emergency Medical Technician I Refresher (C) | 8843 |
| Food Services |  |
| Child Nutrition (CA) | 5692 |
| Dietary Aide (C) | 5750 |
| Dietetic Services ( T ) | 568T |
| Dietetic Services Supervisor (CA) | 5681 |
| Food and Nutrition (AS/CA) | 5682 |
| Food Science/General (T) | 577T |
| Food Science/Sport Nutrition (T) | 578T |
| Food Service Management (AS/CA) | 5691 |
| Foreign Language |  |
| French ( T ) | 552T |
| German ( T ) | 553T |
| Russian (T) | 554 T |
| Spanish (AA) | 5510 |
| Spanish (T) | 5517 |
| Forestry (Pre-Forestry Transfer) | 683 T |
| Geography (T) | 7301 |
| Geology/Earth Science ( ${ }^{\text {( })}$ | $640 T$ |
| Graphic Communications |  |
| Graphic Communications (AS/CA) | 8332 |
| Graphic Design Option (AA/CA) | 8501 |
| Web Design (CA) | 8502 |
| Health Information Technology (AS) | 4621 |
| Health Science (T) | 450 T |
| History/Political Science (T) | 7401 |
| Home Economics (T) | 560 T |
| Home Economics/Consumer |  |
| Education (AS/CA) | 5640 |
| Hono |  |


| Human Services |  |
| :---: | :---: |
| Alcohol and Drug Abuse Counseling Option (AS/CA/C) | 7051 |
| Social Work Option (AS/CA) | 7631 |
| Humanities (AA) | 5330 |
| Humanities (T) | 533 T |
| Industrial Technology |  |
| Industrial Arts (T) | 8997 |
| Industrial Arts \& Technology (AS) | 8991 |
| Industrial Technology/Construction Option (AS) | 8240 |
| Industrial Technology/Construction Option (T) | 824 T |
| Industrial Technology/Manufacturing Option (AS) | 8260 |
| Industrial Technology/Manufacturing Option (T) |  |
| Industrial Technology/Interior Design (T) | 828 T |
| Journalism (T) | 535 T |
| Law (Pre-Law Transfer) | 786T |
| Liberal Arts (AA) | 5100 |
| Liberal Arts (T) | 510 T |
| Liberal Studies/Bilingual Teaching (T) | 7697 |
| Liberal Studies/Teaching Credential ( T ) | 5897 |
| Library Technology (AS/CA) | 5171 |
| Life Science (AS) | 6080 |
| Life Science ( T ) | 6087 |
| Linguistics (T) | 536 T |
| Marketing |  |
| Advertising (C) | 2113 |
| Call Center Telemarketing (CA) | 2115 |
| Customer Relations Specialist (CA) | 2612 |
| Marketing (AS/CA) | 2110 |
| Personal Sales (C) | 2114 |
| Retailing (C) | 2116 |
| Mathematics (AS) | 6200 |
| Mathematics (T) | 6207 |
| Medical Assistant - Clinician (AS) | 2120 |
| Medical Laboratory Technician (T) | 455 T |
| Medicine (Pre-Medicine Transfer) | 684 T |
| Music |  |
| Music (T) | 580 T |
| Musi//Commercial (AS/CA) | 5850 |
| Music/Guitar (AA) | 5830 |
| Music/Instrumental (AA) | 5810 |
| Music/Piano (AA) | 5840 |
| Music/Nocal (AA) | 5820 |
| Natural Resources ( T ) | $683 T$ |
| Nursing |  |
| Nursing/Registered (RN) (AS) | 4520 |
| Nursing (Pre-Nursing Transfer) | 4517 |
| Oceanography (T) | 614 T |
| Optometry (Pre-Optometry Transfer) | 6857 |
| Paralegal (AS/CA) | 2550 |
| Legal Assistant-Clerk (CA) | 2552 |
| Pharmacy (Pre-Pharmacy Transfer) | 686 T |
| Philosophy (AA) | 5340 |
| Philosophy (T) | 5707 |
| Photography |  |
| Commercial Photography (CA) | 5222 |
| Digital Photography (CA) | 5223 |
| Fine Art Photography (CA) | 5224 |

AA $=$ Associate in Arts Degree $\quad C=$ Certificate
AS $=$ Associate in Science Degree $\quad C A=$ Certificate of Acbievement $\quad C C=$ 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, General Motors Technology GM ASEP, building safety and code administration, Cisco, computer aided drafting and design, computer aided manufacturing, construction, electrical systems, 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 35 .


Master certified instructors in the Applied Tecbnology Division prepare students to become qualified automotive technicians in the most advanced automotive technologies.

## Applied Technology Division <br> Richard I. Christl, Dean of Instruction <br> Division Office: <br> Applied Technology, T-100 <br> Phone: (559) 442-8273 <br> Fax: (559) 498-8350

Division E-mail:
fcc.appliedtechnology@
fresnocitycollege.edu

## 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

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

## Administration of Justice

1. Community Service Officer (AJ 277) (Major \#8930)
2. Basic Supervisors (AJ 276) (Major \#8924)
3. Adult Correctional Officer Core (AJ 280) (Major \#8941)
4. Probation Core Course (AJ 285) (Major \#8942)
5. Juvenile Correctional Officer Core (AJ 286) (Major \#8943)
6. Requalification—Basic Course (AJ 219) (Major \#8925)
7. Public Safety Dispatcher's Course (AJ 278) (Major \#8970)

## Air Conditioning

1. Industrial Refrigeration-CARO/EPA Section 608 (AC 55, AC 353) (Major \#8231)

## 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. Parts Clerk (Major \#9260)
6. Roofing (Major \#9300)
7. Welding (Major \#9380)

## Electrical Systems Technology

1. Industrial Control (EST 50 or MMCTC 372, EST 55A, EST 58, EST 59) (Major \#8180)
2. Wireless Networks (EST 61, 62, 269B) (Major \#8178)

Fire Technology

1. Emergency Medical Technician 1 (FIRET 131) (Major \#8842)
2. Emergency Medical Technician 1 Refresher (FIRET 261) (Major \#8843)

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


The Fire Academy at FCC provides student cadets with rigorous and extensive training.

| Basic Academy | \$120.00* |
| :---: | :---: |
| P.C. 832 | \$45.00* |
| Basic Reserve Level I.. | \$45.00* |
| Basic Reserve Level II | \$60.00* |
| Basic Reserve Level III | \$45.00* |

All courses conducted through the Police Academy Program have in-class registration.
*Range fees are subject to cbange.

## 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.
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 <br> 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

## Career \& Technology Center

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

## 92 Applied Technology Division

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)
2. Automotive Mechanics Hours
Auto Mech 371, Engine Repair (Major \#808V)600

Auto Mech 372, Engine Performance (Major \#804V)900
3. Industrial Training ..... HoursIndust Train 371, Warehouse and DistributionCareers (Major \#852V)200
4. Maintenance Mechanic (Major \#806V) ..... Hours
Maint Mech 370, Weld/Machine Shop ..... 300
Maint Mech 371, Hydraulics/Pneumatics ..... 300
Maint Mech 372, Electrical Fund ..... 300
Program Total ..... 900
5. Manufacturing Mechanic (Major \#8301) Hours MFG Mechanic 351, Intro to Manufacturing 9 MFG Mechanic 352A, Trade Mathematics 18 MFG Mechanic 352B, Programmable Controllers 18 MFG Mechanic 352C, Job Preparation 18 MFG Mechanic 352D, Technical Report Writing 18 MFG Mechanic 353A, Fluid Power Fundamentals 9 MFG Mechanic 353B, Pneumatic Fundamentals 18 MFG Mechanic 353C, Hydraulic Fundamentals 18 MFG Mechanic 354A, Power Transmission 9 MFG Mechanic 354B, Welding Fundamentals 45 MFG Mechanic 354C, Electrical Fundamentals 45 Total 225

## Career Advancement Academy (CAA)

Offered through the Applied Technology Division, the Career Advancement Academy at Fresno City College is a new program designed to meet employers needs by providing short-term job training and basic skills enrichment for students looking for careers in selected vocational areas. Students are part of a cohort group and can complete a selected vocational area within five months. Classes starting every six weeks. Learn more about CAA programs by attending an INFORMATIONAL MEETING held weekly. CALL 442-8273 for more information.

As this catalog went to print, programs include Computer Aided Manufacturing, Entry Level Production Welder, Auto Maintenance \& Light Repair ( M.L.R.) , Auto Parts Technician \& Auto Express Service Advisor, and Manufacturing Mechanic. Additional programs to be added.

## Business Division

The Business Division at Fresno City College is composed of five departments: Accounting, Business Administration, Business \& Technology, Computer Information Technology/Decision Sciences, and Paralegal/Real Estate. Each department offers multiple degree and certificate programs to meet the educational needs of our students.
In addition to traditional, semester length classes, we offer a 25 -month evening program for working adults to achieve an associate in arts in Business Administration, and a number of short-term certificate programs.

The Business Division is equipped to offer the following opportunities for our students:

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

The regular two-year program with a transfer objective leads to the associate in arts degree. Occupational preparation, on the other hand, demands in-depth concentration over a like period of time culminating in an associate in science degree. A certificate of achievement is available in all programs for those who choose not to complete all of their general education requirements and to take only the classes required by the major.

## Classroom to Worksite Collaboration

The Business Division faculty and staff coordinate the school and the job by bringing to the classroom the latest information on business methods and employers' needs. Leaders from business are invited to the class as guest speakers and counsel students concerning career opportunities, standards, work habits and attitudes. We also work with local businesses to further meet the educational needs of their employees.

## Employment Available

A full-time job placement officer is housed within the Business Division and is available to help business students secure part-time positions to help finance their education and full-time jobs for those completing their training.

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.

## The Future

The suggested courses of study offered by the Business Division prepare the student for transfer to a four-year university and/or immediate employment in business.

## 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 35.


## Business Division

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## 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 35 .

## Certificate of Achievement

For a listing of certificate of achievement programs, see page 84.

## Certificates

Certificate programs are listed below.

## Accounting

1. Business Accounting and Finance (ACCTG $4 \mathrm{~A}, 4 \mathrm{~B} ; \mathrm{BA}$ 35) (Major \#2010)

## Business Administration

1. Entrepreneurial Ventures (BA 50, 51, 52) (Major \#2041)
2. Human Resource Management and Assistant (BA 31, BA 33, BT 9/BT 25/CIT 20) (Major \#2052)

## Business and Technology

1. Computer Applications Software (BT 9, 10, BT 14/CIT 17, BT 106) (Major \#2202)
2. 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 ( $\mathrm{BA} / \mathrm{BT} 5, \mathrm{BA}$ 33) (Major \#2510)
4. Human Resources and Relations (BA 31, BA 33) (Major \#2520)
5. Management and Supervision (BA 40, BA 43) (Major \#2182)
6. Personal Finance and Investments (BA 30, 34) (Major \#2032)
7. Small Business Management (BA 38, 51) (Major \#2030)

## Computer Information Technology

1. MCSE Core (CIT 50, 51, 52) (Major \#2721)
2. Microsoft Access (CIT 26, 27) (Major \#2707)
3. Microsoft Excel (CIT 23, 24) (Major \#2709)
4. Microsoft Office (CIT 20, 21) (Major \#2711)
5. Preparation in Microsoft Office (BT 27, 28, 29; CIT 20, 21, 23, 24, 26, 27, 29) (Major \#2710)
6. System Support Specialist (CIT 40, 45, 238; EST 60) (Major \#2723)
7. Web Page Development (CIT 80, 86, 87) (Major \#2741)

## 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)

## Co-Curricular Activities

As an integral part of the instructional program, the Business Division supports two co-curricular groups. The effort is represented by the Paralegal Student Organization (Paralegal majors) and the CIT Zero Computer Technology Club. Service-oriented activities are conducted that benefit both the college and community. These student organizations are 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
Music, Commercial Music

## Certificate of Achievement

Art, Two- or Three-Dimensional Art
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 Arts Division
Jothany Blackwood, Dean of Instruction Division Office:

Theatre Building, TA-103
Phone: (559) 265-5752
Fax: (559) 265-5755
Division E-mail:
fcc.artsdivision@
fresnocitycollege.edu


The FCC Music Department offers a rich and varied array of performance groups and academic courses for students.

## 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.

## 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.


The Theatre Arts and Dance Department at FCC provides students with extensive training by expert instructors. Each course that is taught and production that is staged emphasizes a bands-on approach and places special focus on producing a "well rounded" theatre artist.


The Fine, Performing and Communication Arts Division provides students with a wide variety of opportunities to develop their artistic talents.

## Health Sciences Division

The Health Sciences Division offers courses for fulfilling requirements in a number of occupational programs such as:

- Dental Hygiene
- Medical Assistant - Clinician
- Health Information Technology
- Radiologic Technology
- Registered Nursing
- Respiratory Care Practitioner
- 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 271, 303, 313 and 314.

## 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 14 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 may be required to obtain a background check.

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 Division

Carolyn C. Drake, Ed.D., 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


The Health Sciences Division offers many quality programs that include Dental Hygiene, Nursing, Respiratory Care, Radiology and Surgical Assisting.

## 98 Humanities Division

## Humanities

## Division

Michael D. Roberts, 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 which enrich students' lives, while improving basic skills in reading and writing; courses that meet general education requirements; and courses of study to complete various associate degrees 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 contexts.

## Departments

## Composition

This department offers English 1A (Reading and Composition) and English 105 (Grammar and Punctuation). English 1A is required for students wishing to transfer to colleges or universities.

## Foreign Language

Our Foreign Language Program offers courses in American Sign Language, Armenian, Chinese, French, German, Hmong, Japanese, Spanish, Spanish for Native Speakers and Swahili, all with emphasis on communicative competence. Students learn the necessary skills that allow them to communicate in many different situations.

## Letters

Letters courses provide students with skills to analyze and appreciate great works of literature, philosophy, and the arts. In addition, our Letters Program offers creative writing courses in poetry, fiction, autobiography, and play writing.

## Linguistics/English as a Second Language

The Linguistics/ESL Department offers two distinct programs. For English as a Second Language students needing to develop their reading, writing, and study
skills, the department offers a sequential program designed to prepare students for an AA/AS degree and university transfer level courses. Additionally, the department offers linguistics courses that satisfy transfer level area requirements.

## Preparatory English

For students needing to develop their reading and writing skills, Preparatory English offers a sequential program of study designed to prepare students for AA/AS degree and university transfer courses.

## Associate in Arts Degrees

## English

The English degree program offers students lower division subjects they will study as English majors in four-year college or university programs and/or prepares students for entry into career options requiring expertise in English language and literature.

## Humanities

The Humanities major is for students seeking an integrated Liberal Arts education, either as a pre-professional major or a self-enrichment program. This sequence of courses will satisfy requirements for the AA degree and for GE transfer certification for the state university system.

## Philosophy

The Philosophy major develops students' critical thinking and creative reasoning skills, enhances their ability to read complex material, and improves communication skills. These are valuable assets for transfer and career oriented students.

## Spanish

The Spanish major prepares students for entry into a variety of career options requiring intermediate or better levels of fluency. The Spanish major also acquaints students with Spanish-speaking cultures.

## 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.
The Division offers courses that satisfy the requirements of the Liberal Studies major at CSU, Fresno. The courses provide content in physical sciences (Natural Science 1A), biology (Biology 3), and geology (Geology 9).

Students interested in the sciences can participate in the Fresno City College Science Club. Activities include seminars, numerous field experiences, as well as social outings. Students emphasizing medicine or veterinary medicine can participate in Fresno City College's Pre-Med Club.

The faculty encourages students to participate in numerous research and community activities from laboratory research to field studies. Students have participated in various summer internship programs throughout California and abroad; such as, NASA, Lawrence-Berkeley Laboratories, Forrest Service, California State Mining and Mineral Museum, and Sierra Foothills Conservancy.

## 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 Chemistry Department 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 six 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. 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

Division: www.fresnocitycollege.edu/mathscience/

## Biology, Chemistry, and Mathematics

Math, Science and Engineering Division<br>Ashok Naimpally, Ph.D., Dean of Instruction Division Office:<br>Science Building, S-51<br>Phone: (559) 442-8215<br>Fax: (559) 497-8814<br>Division E-mail:<br>fcc.mathscience@<br>fresnocitycollege.edu

## Biology

Science Building, S-155
(559) 442-4600, ext. 8396

Chemistry
Science Building, S-255
(559) 442-4600, ext. 8397

## Mathematics

Science Building
(559) 442-4600, ext. 8215

## Physical Sciences

Science Building, S-255
(559) 442-4600, ext. 8397

## Math, Science and Engineering Web Site Addresses

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

## 100 Math, Science and Engineering Division

spectrometers, Atomic Absorption Spectrophotometer, H-1 and C-13 FT-NMR spectrometer, and Gas Chromatograph/ Mass Spectrometer.

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 .

## Mathematics and Computer Science

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

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

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
- Cultural and Women's Studies including:

African-American Studies
American Indian Studies
American Studies
Asian-American Studies
Chicano-Latino Studies
Women's Studies

- History and Political Science
- Child Development
- Psychology and Education, including Education Aide
- Criminology, Human Services, Sociology, including:
Culinary Arts
Fashion Merchandizing
Food and Nutrition
Food Service Management
Home Economics
Courses offered satisfy transfer and associate degree general education requirements.


## Career Training

The Social Sciences Division also offers career training in:

- Alcohol and Drug Abuse Counseling
- Archaeology Technician
- Child Development
- Child Nutrition
- Corrections
- Criminology
- Culinary Arts
- Dietary Aide
- Dietetic Service Supervisor
- Food Service Management
- Home Economics
- Law Enforcement
- Social Work

Students may select a training program leading to a certificate, a certificate of achievement or an associate in science degree. Certificate programs require occupational courses only and vary between 6 and 40 units of course work. The associate in science degree mandates a minimum of 60 units, consisting of the major, electives, and required courses in general education.

The Social Sciences Division is also home to the Fresno City College Anthropology Museum and the Child Development Center. It coordinates programs in Foster Care, Independent Living, TANF and Americorps.
Located in S0-128, the Fresno City College Museum of Anthropology presents exhibits about human culture drawn from both its ethnographic and archaeological collections. Fresno City College anthropology students have the opportunity to learn collections management and to participate in the development and production of new exhibits, which are open to students and the public free of charge. Tours and activities are lead by FCC students for visitors to the museum. Take a web tour of Vanishing Places, Endangered People by clicking the Anthropology Museum link at http:// www.fresnocitycollege.edu/socialscience/anthro/ anthropology.html>. For hours of operation, information about exhibits, or to arrange a tour, please contact Dr. Jill Minar at (559) 442-8210 extension 8360 .

## Social Sciences Division

M.E. Mericle, Ph.D., 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 College within the State Center Community College District, and students may register at either institution or both institutions concurrently. As the registration procedures may differ slightly, students interested in enrolling for courses at Fresno City College should contact the Admissions Office on either campus for further information and direction.

Each college of the District offers certain programs/ courses which are unique and not offered at the other campus. Following is a partial list of those programs/ courses offered at Fresno City College that are not offered on the Reedley College campus:

- Administration of Justice
- Aerospace Studies
- African-American Studies
- Air Conditioning
- American Studies
- American Indian Studies
- Applied Technology
- Apprenticeship Programs
- Architecture
- Asian-American Studies
- Automotive Collision Repair Technology
- Automotive Technology

General Motors ASEP

- Building Safety and Code Administration
- Business \& Technology
- Computer Aided Drafting and Design
- Construction
- Cultural Studies
- Dental Hygiene
- Drafting
- Electrical Systems Technology
- Fire Technology
- Graphic Communications
- Health Information Technology
- Latin American Studies
- Library Skills
- Library Technology
- Marketing
- Military Science
- Networking/Computer Technician
- Nursing: Registered
- Paralegal
- Police Academy
- Real Estate
- Radiologic Technology
- Respiratory Care
- Surgical Technology


## 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:

- Auto Collision Repair
- Engine Performance/Emission Control
- Engine Repair
- Industrial Training
- Maintenance Mechanic
- Manufacturing Mechanic

For additional information, write or call the center.

## Career \& Technology Center

2930 East Annadale Avenue, Fresno, CA 93725
(559) 486-0173

## Reedley College

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

- Aeronautics
- Agri-Business
- Animal Science
- Dental Assisting
- Forest/Park Technology
- General Agriculture
- Landscape Horticulture
- Mechanized Agriculture
- Natural Resources
- Office Technology
- Plant Science: Grape and Tree Fruit Management

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

## North Centers

## Clovis Center

The Clovis Center was established in 1992 in the community of Clovis, located just north of the City of Fresno. The Clovis Center provides students all the opportunities available at any college campus in the District at one convenient location. Students who attend the Center are able to utilize counseling, bookstore, and cafeteria services under one roof.

Clovis Center
390 W. Fir Ave., Clovis, CA 93611
(559) 323-4595

## Madera Center

The Madera campus is located on Avenue 12 just east of Highway 99 at the edge of the City of Madera. The Center offers a wide variety of academic and occupational programs and opportunities for students.

## Madera Center

30277 Avenue 12, Madera, CA 93638
(559) 675-4800

## Oakhurst Center

The 0akhurst Center is located in the Central Business District of Oakhurst. The various programs are taught in relocatable classrooms arranged into a small campus setting. Students can complete courses leading to an associate degree and/or transfer program.

## Oakhurst Center

40241 Highway 41, Building Site G,
Oakhurst, CA 93644
(559) 683-3940

## Willow International

The Willow International Center is the newest college center for the State Center Community College District (SCCCD). This center provides the advantages of a me-dium-sized community college campus in a friendly and contemporary setting. The Willow International Center is on tap to become a full-scale campus of the SCCCD serving 10,000 students from the Fresno, Clovis and the foothill communities with a variety of higher education options and opportunities.

Willow International
10309 N. Willow
Fresno, CA 93730
(559) 325-5200

## 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.

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

- Dinuba Community Campus Dinuba Vocational Center 199 N. L Street Dinuba, CA (559) 596-2170
- Fowler Community Campus

Fowler High School 701 E. Main Street Fowler, CA
(559) 638-0306

- Kerman Community Campus Nova High School 15405 W. Sunset Ave. Kerman, CA
(559) 846-5380
- Parlier Community Campus Parlier High School 601 3rd Street Parlier, CA (559) 638-0306
- Sanger Community Campus Sanger High School 1045 Bethel Sanger, CA (559) 875-7121
- Selma Community Campus Selma High School 3125 Wright Street Selma, CA (559) 898-6590


# ASSOCIATE DEGREE and CERTIFICATE PROGRAMS 

## ACCOUNTING - MAJOR \#2010

The accounting degree program (Major 2010) qualifies the student for entry-level accounting positions in business, government, industry, and financial institutions. This program is designed for a two-year AS degree or Certificate of Achievement. Students interested in pursuing a Bachelor's degree in Accounting should consult the catalog of the transfer institution for the specific requirements.
ASSOCIATE IN SCIENCE DEGREE AND

## CERTIFICATE OF ACHIEVEMENT

FIRST YEAR
First Semester Units
*ACCTG 4A/4AH Financial Accounting, or
Honors Financial Accounting ........................... 4
BA 10 Introduction to Business ....................................... 3
BT 123 Ten-Key Skillbuilding .......................................... 1
CIT 15 Computer Concepts ............................................. 3
Total 11
Second Semester
Units


Second Semester Units
*ACCTG 52 Cost Accounting ................................................... 3
*ACCTG 56 Payroll Accounting............................................... 2
ACCTG 59 Accounting Practicum II ....................................... 1
ACCTG 19 Work Experience (Coop), Occup ........................... 1
Total 7
Recommended Electives: BA 5, 16, 18, 30, and 33; BT 4, 20, and 21; CIT 17, 20, 24, and 26; ECON 1A and 1B.
*The advanced accounting courses noted above may 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 AS Degree requirement.
Note: Associate degree requirements are listed on page 35.

## BUSINESS ACCOUNTING AND FINANCE 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.

| CERTIFICATE |  | Units |
| :--- | :--- | :--- |
| ACCTG 4A/4AH | Financial Accounting, or <br> Honors Financial Accounting ........................... 4 |  |
| ACCTG 4B/4BH | Managerial Accounting, or <br> Honors Managerial Accounting .......................... 4 |  |
| BA35 | Business Financial Management................... 3 |  |

## COMPUTERIZED ACCOUNTING - MAJOR \#2405

This curriculum is designed for entry-level employment as an account clerk using various software packages and the latest in business technology to perform various account clerk functions.

| CERTIFIC | ACHIEVEMENT | Units |
| :---: | :---: | :---: |
| ACCTG 19 | Work Experience (Coop), Occup |  |
| ACCTG 34 | Accounting Spreadsheets.... | ... 3 |
| ACCTG 55 | Accounting Methods. |  |


| ACCTG 70 | QuickBooks Fundamentals................................ 2 |
| :---: | :---: |
| ACCTG 260 | Accounting Skills Lab....................................... 1 |
| ACCTG 270 | Accounting Math Skills.................................... 1 |
| BT 1 | Beginning Typing.......................................... 4 |
| BT 4 | Ten-Key Calculation........................................ 2 |
| BT 20 | Resume/Interview ........................................... 1.5 |
| BT 21 | Working Relationships.................................... 1.5 |
| BT 131 | Applied Accounting .......................................... 4 |
| BT 206 | Automated Business Records ............................. 1 |
| BT 250 | Office Skills Lab.............................................. 1 |
| BT 271 | Business Grammar Fundamentals....................... 2 |
|  | Total 28 |

Note: Student must demonstrate the ability to type 35 words per minute with $97 \%$ accuracy and 130 correct strokes per minute on the ten-key calculator.

## FULL CHARGE B00KKEEPER - MAJOR \#2012

This curriculum is designed to provide knowledge and skills to individuals seeking employment as bookkeepers in small-to-large size organizations.

| CERTIFICATE OF | ACHIEVEMENT ++ Units |
| :---: | :---: |
| ACCTG 4A/4AH | Financial Accounting, or |
|  | Honors Financial Accounting ......................... 4 |
| ACCTG 19 | Work Experience (Coop), Occup ......................... 3 |
| ACCTG 56 | Payroll Accounting........................................... 2 |
| ACCTG 58 | Accounting Practicum ..................................... 1 |
| ACCTG 73 | MAS90 Fundamentals ...................................... 2 |
| ACCTG 260 | Accounting Skills Lab....................................... 1 |
|  | Total 13 |

## ADAPTIVE ORNAMENTAL HORTICULTURE SKILLS - MAJOR \#1060

The adaptive ornamental horticulture skills program is designed to provide students with disabilities both educational and vocational opportunities. A certificate will not only validate participation in the program, but it will also enhance the opportunities to secure gainful employment.

## CERTIFICATE

FIRST YEAR
First Semester Units
DEVSER 275 Horticulture Skills I............................................. 2
DEVSER 262 Group Interaction for Students with Disabilities.... 2
Total 4

## Second Semester <br> Units

DEVSER 276 Horticulture Skills II ............................................ 2
DEVSER 262 Group Interaction for Students with Disabilities.... 2
Total 4
SECOND YEAR
First Semester Units
DEVSER 282 Greenhouse Workforce Prep

$\qquad$
Total 4
Second Semester ..... Units
DEVSER 282 Greenhouse Workforce Prep

$\qquad$ .....  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.
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
TOTAL UNITS REQUIRED ..... 27
REQUIRED CORE COURSES: Select 24 Units ..... Units
AFRAM 1 African-American Culture. .....  3
AFRAM 2 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-American Creative Workshop. .....  3
AFRAM 17 African-American Literature .....  3
AFRAM 21/SWAHLI 1 Beginning Swahili. .....  4
AFRAM 22/SWAHLI 2 High-Beginning Swahili .....  4

## 106 African-American Studies

AFRAM 36 Contemporary Africa .....  3
AFRAM/WSTS 41 The African-American Woman .....  3
AFRAM $49 \quad$ Black Gospel Choir. .....  3
Notes: 1. An associate in arts degree will be awarded to any candidate whosuccessfully completes 60 units. The 60 units must include associatedegree requirements and at least 27 units of course work as listedabove.
2. Associate degree requirements are listed on page 35 of this catalog. General Education requirements for transfer certification are on page 43.

## 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 and 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 <br> CERTIFICATE OF ACHIEVEMENT <br> FIRST YEAR

## First Semester <br> Units

AC 50 Principles of Mechanical Refrigeration................. 3
AC 51 Electrical Systems............................................... 7
AC 53 Measurements and Diagnosis ................................ 7
AT 10 Technical Computer Applications.......................... 2
Total 19

## Second Semester <br> Units

AC 52 Heating Systems .................................................. 7
AC 54 Commercial Systems........................................... 7
AC 55 Technician Testing \& Certification........................ 1
AC 56 Duct Systems ....................................................... 3
Total 18

## SECOND YEAR

First Semester Units
AC 57 System Configuration \& Control ........................... 2
AT 21 Occupational Safety \& Health............................... 2
AT 130 Industrial Math ................................................... 3
WELD 1 Exploring Welding/Metals ................................... 3
Total 10

| Second |  | Units |
| :---: | :---: | :---: |
| AT 40 | Preparing for Employment Opportunities... | ....... 3 |
| AT 120 | Industrial Science ....................... | ....... 3 |
| EST 55A | Digital Concepts ................................ | ...... 3 |
| EST 55B | Facility Automation................................. | .......... 3 |

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

## AIR CONDITIONING TECHNOLOGY OVERVIEW MAJOR \#8033

This curriculum provides training in the principles of mechanical refrigeration, residential and commercial system configurations, electrical fundamentals, motors and controls, heating systems, and troubleshooting procedures.


## COMMERCIAL AIR CONDITIONING, HEATING, AND DUCT SYSTEMS - MAJOR \#8031

This curriculum provides training in three-phase power, motors, refrigerant flow controls typically used in commercial applications, National Electrical Code requirements related to the $\mathrm{HVAC} / \mathrm{R}$ industry, heating systems (gas, electric, and heat pumps), and the design and installation of residential duct systems. Successful completion of the program includes industry recognized licensing/certifications.
CERTIFICATE OF ACHIEVEMENT ++ Units
AC 52 Heating Systems ................................................. 7
AC 54 Commercial Systems............................................ 7
AC 56 Duct Systems ...................................................... 3
Total 17

## DIGITAL AIR CONDITIONING CONTROLS MAJOR \#8034

This curriculum provides training in the use of direct digital controls in commercial HVAC applications, examines various system configurations, control strategies, and introduces total building automation.

[^3]
## CERTIFICATE OF ACHIEVEMENT ++ Units

AC 57 System Configuration \& Control ........................... 2
AC 250 Digital Unitary Controls....................................... 2
AC 251 Digital VAV Controls............................................. 1
AC 252 DDC Network Controllers .................................... 2
AT 10 Technical Computer Applications......................... 2
EST 55A Digital Concepts ..................................................... 3
EST 55B Facility Automation............................................ 3
Total 15

## INDUSTRIAL REFRIGERATION - CARO/EPA- <br> SECTION 608 CERTIFICATE - MAJOR \#8231

This program is intended for the entry-level operator with little or no experience in industrial refrigeration. The curriculum provides instruction in the principles of mechanical refrigeration in an industrial setting and related safety issues. The coursework is intended to help the student prepare for the Refrigerating Engineers \& Technicians Association's (RETA) Certified Assistant Refrigeration Operators (CARO) examination. Students will also receive instruction to prepare them for the EPA-section 608 certification exam. CERTIFICATE Units
AC 55 Measurements and Diagnosis ............................... 6
AC 353 Principles of Industrial Refrigeration.................... 0
Total 6

## MECHANICAL AND ELECTRICAL SYSTEMS - <br> MAJOR \#8032

This curriculum provides training in the principles of mechanical refrigeration, electrical fundamentals, single-phase motors and controls, reading wiring diagrams, airflow measurement, and the use of psychometrics as a diagnostic tool.
CERTIFICATE OF ACHIEVEMENT ++ Units
AC 50 Principles of Mechanical Refrigeration................. 3
AC 51 Electrical Systems................................................ 7
AC 53 Measurements and Diagnosis ............................... 7
Total 17

## 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 American-Indian population in the United States, and there are 14 reservations in our immediate area. American Indian Studies exists to serve Indian and non-Indian students who will be working in any service field, academic or social institution. The program leading to the associate in arts degree will also provide a foundation in American Indian Studies for students wishing

## ++ Pending State Chancellor's Office Approval.

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 <br> REQUIRED CORE COURSES Units <br> AMIND 31 American Indian Culture..................................... 3 <br> AMIND 32 American Indian History....................................... 3 <br> AMIND 33 Indians of the San Joaquin Valley ........................ 2 <br> AMIND 34 American Indian Contempry Society..................... 3 <br> AMIND 35 American Indian Art........................................... 3

 Total 14
## COURSE OPTIONS: Select a Minimum of 9 Units Units

AFRAM 5 The African in the New World............................... 3
ANTHRO 20 Native Peoples of California................................. 3
ANTHRO/CLS 28 Ancient Mexico.................................................. 3
ENGL 14 Folklore............................................................ 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 35 of this catalog. General Education requirements for transfer certification are on page 43.

## 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 REQUIRED21
REQUIRED CORE COURSES ..... Units
ANTHRO 1 Biological Anthropology. .....  3

ANTHRO 2 Cultural Anthropology .
.. 3

ANTHRO 3 Int to Archaeology \& 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 ..... Units
*ANTHRO 3 Int to Archaeology \& Prehistory .....  3
ANTHRO 13 Magic, Witchcraft, and Religion .....  3
ANTHRO 20 Native Peoples of California .....  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 Museum Studies in Anthropology. .....  3
ANTHRO 27 Archaeological Reconnaissance ..... 2
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 8A/B 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



# ANTHROPOLOGY - ARCHAEOLOGY ARCHAEOLOGICAL TECHNICIAN - MAJOR \#7120 

The paraprofessional archaeologist works as a field and laboratory technician or assistant supervisor under the direction of professionals. The certificate of achievement is a program designed to enable nonprofessional archaeologists to receive training in the various aspects of modern archaeology and to achieve recognition and employment in this scientific field.
CERTIFICATE OF ACHIEVEMENT
TOTAL UNITS REQUIRED .21
REQUIRED CORE COURSES: 15 units MINIMUM Units
ANTHRO 1 Biological 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 Archaeology. ..... 2-6
Total 15-19
COURSE OPTIONS: 6 units MINIMUM
At least one course from each of the following two categories:
Category I: Culture Area Studies ..... Units
ANTHRO 3 Int Archaeology and Prehistory .....  3
ANTHRO 20 Native Peoples of California. .....  3
ANTHRO 28 Ancient Mexico .....  3
ANTHRO 29 Study Abroad .....  3
Category II: Practical Applications ..... Units
ANTHRO 7 Museum Studies in Anthropology. .....  3
ANTHRO 27 Archaeological Reconnaissance .....  2
ART 7 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
OPTION COURSE(S)
Second Semester (Spring) Units
ANTHRO 4 Int to Archaeology: Methods \& Theory ..... 3
ANTHRO 6 Field Archaeology ..... 1-2
Option Course(s)
Third Semester (Fall) ..... Units
ANTHRO 1 Biological Anthropology ..... 3
Option Course(s)
Fourth Semester (Spring) ..... Units
ANTHRO 6 Field Archaeology ..... 1-2
BIOL 7 Field Biology (highly recommended elective) ...... 4
Option Courses(s)
APPRENTICESHIP AUTOMOTIVE AND HEAVY-DUTY ELECTRICAL - MAJOR \#9020
This curriculum is designed for the auto electrical or heavy-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 Apprenticeship-First Aid .....  0
Second Semester
AT 21 Occupational Safety \& Health. ..... 2
SECOND YEAR
First Semester Units
AUT0T 283A Engine Performance \& Diagnosis .....  3
Second Semester ..... Units
AUTOT 283A Engine Performance \& Diagnosis ..... 3
THIRD YEAR ..... Units
First Semester
,
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

## Recommended Elective: APP 19

*Contact Coordinator of Apprenticeship Training
APPRENTICESHIP AUTOMOTIVE MECHANICS - MAJOR \#9040This 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 Essentials ..... 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), Occup ..... 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 Braking Systems. .....  5
**AUTOT 19 Work Experience (Coop), Occup ..... 2-4
Second Semester ..... Units
AUTOT 57 Heating and Air Conditioning. .....  5
FOURTH YEAR
First Semester Units
WELD 1 Exploring Welding/Metals .....  3
Second Semester ..... Units
AT 10 Technical Computer Applications. .....  2
APP 360 Apprenticeship-First Aid .....  0* High School Articulation (1 year)** Apprentice must complete at least 10 units of work experience
Recommended 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.

## 110 Apprenticeship

## CERTIFICATE OF COMPLETION <br> first Year <br> First Semester APP 360 Apprenticeship-First Aid................................... 0 <br> Second Semester Units <br> AUTOT 9 Automotive Essentials ....................................... 3 <br> SECOND YEAR <br> First Semester Units <br> AUTOT 282A Suspension and Wheel Alignment........................ 3 <br> Second Semester Units <br> WELD 1 Exploring Welding/Metals .................................. 3 <br> THIRD YEAR <br> First Semester AUTOT $284 \quad$ Automotive Air Conditioning.............................. 3 <br> Second Semester Units <br> AUTOT 294 Lamp/Brake Adjustment/Cert Prep......................... 3 <br> FOURTH YEAR <br> First Semester Units <br> AT 10 Technical Computer Applications........................... 2 <br> Second Semester Units <br> ACRT 55 Spray Refinishing......................................... 2 <br> Total 19

Recommended Elective: AT 130 .

## APPRENTICESHIP COOK - MAJOR \#9085

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

## CERTIFICATE

FIRST YEAR

| First Semester | Units |
| :---: | :---: |
| FN 1 | Principles of Food Preparation........................... 3 |
| FSM 35 | Food Services, Sanitation, Safety \& Equipment..... 2 |
| Second Semeste | er Units |
| BT 131 | Applied Accounting ......................................... 4 |
| SECOND YEAR |  |
| First Semester | Units |
| FSM 25 | Food and Beverage Purchasing and Control......... 2 |
| Second Semest | er Units |
| FN 35 | Nutrition and Health, or |
| FN 40 | Nutrition................................................... 3 |

THIRD YEAR
First Semester Units
FSM 11 Food Service Supervision .....  2
Second Semester ..... Units
FSM 15 Food Production Management. .....  2
Total 18
APPRENTICESHIP DIESEL AND HEAVY-DUTY MECHANICS - MAJor \#9100
This curriculum is designed for the diesel and heary-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 Apprenticeship-First Aid .....  0
Second Semester ..... Units
APP 361/3B Diesel \& Heary-Duty Mechanics. .....  0
SECOND YEAR
First Semester ..... Units
APP 361/3B Diesel \& Heavy-Duty Mechanics. .....  0
Second Semester ..... Units
APP 361/3B Diesel \& Heary-Duty Mechanics. .....  0
THIRD YEAR
First Semester ..... Units
AUT0T 282A Suspension and Wheel Alignment. .....  3
Second Semester ..... Units
AUTOT 282B Automotive Braking Systems .....  3
FOURTH YEAR
First Semester Units
WELD 1 Exploring Welding/Metals .....  3
Second Semester ..... Units
AUTOT 284 Automotive Air Conditioning .....  3
Total 12
Recommended Elective: APP 19.
APPRENTICESHIP ELECTRONICS -
MAJOR \#9140
This 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 ACHIEVEMENTFIRST YEAR
First Semester ..... Units
2.5

Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

| Second Semest |  | Units |
| :---: | :---: | :---: |
| AT 10 | Technical Computer Applications. | $\ldots . . . .2$ |
| SECOND YEAR |  |  |
| First Semester EST 51 |  | Units |
|  | Direct Current Fundamentals of El | ....... 3 |
| Second Semester |  | Units |
| EST 52 Alternating Current Fu |  |  |
| THIRD YEAR |  |  |
| First Semester |  | Units |
| EST 54 | Integrated Devices ........ | ..... 3 |
| Second Semester |  | Units |
| EST 55A Digital Conc |  |  |
| FOURTH YEAR |  |  |
| First Semester |  | Units |
| EST 55B | Digital Applications..................... | $\ldots$ |
| Second Semester |  | Units |
| AT 21 | Occupational Safety and Health. | ...... 2 |
| Recommended Elective: EST 19. |  |  |
| 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 ACHIEVEMENT ++ |  |  |
| FIRST YEAR |  |  |
| First Semester |  | Units |
| AT 130 | 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 | CNC Mill Programng \& Operation I. | ....... 3 |
| THIRD YEAR |  |  |
| First Semester |  | Units |
| CAM 20 | CNC Mill Programng \& Operation II | ...... 6 |
| Second Semest |  | Units |
| CAM 40 | CNC Lathe Programng \& Operation. | ......... 3 |
| AT 11 | Basic Electricity .......................... | ......... 3 |
| APP 360 | Apprenticeship First Aid................. | ......... 0 |

FOURTH YEAR
First Semester Units
CAM 30 CNC Mill Programng \& Operation III

$\qquad$
Second Semester ..... Units
AT 120 Industrial Science .....  3
WELD 1 Exploring Welding/Metals .....  3
Recommended Elective: APP 19.
APPRENTICESHIP PARTS CLERK -
MAJOR \#9260This curriculum is designed for the partsclerk who is employed full timeand indentured as an apprentice by the local Automotive Mechanics JointApprenticeship Committee.CERTIFICATE OF COMPLETIONFIRST YEAR
First Semester ..... Units
AUTOT 9 Automotive Essentials .....  3
Second Semester ..... Units
AT $130 \quad$ Industrial Math, and/or math test. ..... 3
SECOND YEAR
First Semester ..... Units
BA 10 Introduction to Business .....  3
Second Semester ..... Units
BA 40 Supervision \& Leadership Skills .....  3
THIRD YEAR
First Semester Units
ACCTG 4A Financial Accounting. .....  4
Second Semester ..... Units
AT 10 Technical Computer Applications. .....  2
FOURTH YEAR
First Semester ..... Units
SPEECH 2 Interpersonal Communication .....  3
Second Semester ..... Units
APP 360 Apprenticeship-First Aid .....  0
AT 21 Occupational Safety and Health .....  2
APPRENTICESHIP ROOFING - MAJOR \#9300This curriculum is designed for the roofer who is employed full time and in-dentured as an apprentice by the Roofing Joint Apprenticeship Committee.CERTIFICATE OF COMPLETIONFIRST YEARFirst Semester UnitsUnits
APP 361/6j Roofing. .....  0
Second Semester ..... Units
APP 361/6J Roofing. .....  0
SECOND YEAR
First Semester ..... Units
APP 361/6J Roofing .....  0
Second Semester Units
APP 361/6J Roofing. .....  0
THIRD YEAR
First Semester ..... Units
APP 361/6J Roofing .....  0
Second Semester ..... Units
APP 361/6J Roofing. .....  0
Recommended Elective: APP 19.
APPRENTICESHIP STATIONARY
ENGINEERS - MAJOR \#9360This curriculum is designed for the stationary engineer who is employedfull time and indentured as an apprentice by the Stationary Engineers JointApprenticeship Committee.CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester ..... Units
AT 130 Industrial Mathematics. .....  3
Second Semester ..... Units
AT 21 Occupational Safety and Health .....  2
SECOND YEAR
First Semester Units
WELD 1 Exploring Welding/Metals .....  3
Second Semester ..... Units
AT 11 Basic Electricity .....  3
THIRD YEAR
First Semester Units
AC 60A Fundamentals of Refrigeration. .....  3
Second Semester ..... Units
AC 260B Electricity for Air Conditioning .....  3
FOURTH YEAR
First Semester ..... Units
AT 10 Technical Computer Applications. .....  2
Second Semester ..... Units
EST 272 Industrial Motor Control .....  3Total 22
Recommended Elective: APP 19.
APPRENTICESHIP WELDING - MAJoR \#9380
This curriculum is designed for the welder who is employed full time and
indentured as an apprentice by the Welding/Machinist Joint Apprenticeship
Committee.
CERTIFICATE OF ACHIEVEMENT ++
FIRST YEAR
First Semester Units
APP 360 Apprenticeship-First Aid .....  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 .....  2
Total ..... 19

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

## ARCHITECTURE - MAJOR \#6810

This curriculum is designed to prepare students for employment with architects, engineers, interior designers, building contractors, building material companies and government agencies. It is also designed as basic coursework for transferring into advanced degree programs in architecture and related fields. Courses may or may not be transferable based on school to which you are transferring, course content, and quality/quantity of the student portfolio. Students are encouraged to take courses in the order listed. Not all courses are offered each semester. Students wishing to transfer into an advanced degree program should contact that particular college or university for all specific transfer requirements including, but not limited to Math and English.

[^4]| ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |
| :---: | :---: |
| FIRST YEAR |  |
| Fall Semester | Units |
| AT 10 | Technical Computer Applications .................... 2 |
| ARCH 10 | Architectural Design and Visualization I.......... 3 |
| ARCH 11 | Introduction to Architecture........................... 1 |
| ARCH 12 | Architectural Practice I................................ 3 |
| ARCH 14 | Digital Tools for Architects ............................. 3 |
| CADD 14 | Introduction to CAD..................................... 3 |
| DRAFT 160 | Math of Drafting......................................... 3 |
|  | Total 17 |
| Spring Semester | Units |
| AT 131 | Technical Reports ........................................ 3 |
| ARCH 20 | Architectural Design and Visualization II......... 3 |
| ARCH 21 | Materials of Construction.............................. 3 |
| ARCH 22 | Architectural Practice II .............................. 3 |
| ARCH 24 | Architecture CAD I ....................................... 2 |
|  | Total 14 |
| SECOND YEAR |  |
| Fall Semester | Units |
| ARCH 30 | Architectural Design and Visualization III ........ 3 |
| ARCH 31 | Building Codes........................................... 3 |
| ARCH 32 | Statics and Strength of Materials .................... 3 |
| ARCH 34 | Architectural CAD II..................................... 3 |
|  | Total 12 |
| Spring Semester | Units |
| ARCH 40 | Architectural Design and Visualization IV........ 3 |
| ARCH 41A | Office Practices ............................................ 3 |
| ARCH 42 | Timber and Steel Structures.......................... 3 |
| ARCH 44 | Arch. Comp. Rendering and Portfolio .............. 3 |
| AT 40 | Preparing for Employment Opportunities ........ 3 |
|  | Total 15 |
| Note: Students qualify major requireme degree requirem awarded the ass | for the certificate of achievement upon completion of the ents listed above. In addition, those completing the associate ents on page 35 of the catalog, upon application, will be sciate 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
ART 3 Two-Dimensional Design. .....  3
ART 4 Three-Dimensional Design. .....  3
ART 5 Art History 1 .....  3
ART 6 Art History 2 .....  3
ART 7 Beginning Drawing .....  3
ART 8 Beginning Figure Drawing and Anatomy . .....  3
Total 18
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, PRINTMAK-ING. In addition, 1 course (3 units) must be selected from the 3-dimensionalarea or Art History.THREE-DIMENSIONAL ART MAJORS must complete 2 courses (6 units)within one of the following specialties: CERAMICS, CRAFTS, JEWELRY ANDMETALSMITHING, SCULPTURE, TEXTILE DESIGN. In addition, 1 course (3units) must be selected from the 2-dimensional area or Art History.
TWO-DIMENSIONAL - MAJOR \#5201ART 9, 19, 29Beginning, Intermediate and AdvancedPainting: Oil/Acrylic.3-3-3
ART 13, 23 Beginning and Intermediate WatercolorPainting3-3
ART 14 Beginning Printmaking .....  3
ART 16 Life Painting .....  3
ART 17, 27 Intermediate and Advanced Drawing ..... 3-3
ART 18, 28 Intermediate and Advanced Figure Drawing and Anatomy ..... 3-3
ART 24A Intaglio Printmaking. .....  3
ART 24B Lithograph Printmaking .....  3
ART 24 C Relief Printmaking .....  3
ART 24D Screenprinting. .....  3
ART 25 Mural Painting. .....  3
ART 35 Color Theory. .....  3
ART 39B Introduction to Graphic Design. .....  3
THREE-DIMENSIONAL - MAJOR \#5202
Units
ART 10, 20 Beginning and Intermediate Ceramics ..... 3-3
ART 11, 21 Beginning and Intermediate Sculpture ..... 3-3
ART 12A, 12B Beginning and Intermediate Craft Studio, ..... 3-3
ART 15 Beginning Ceramic Sculpture .....  3
ART 22A Textile Design: Hand Papermaking. .....  3
ART 22B Textile Design: Basic Textile Structures. .....  3

SECOND YEAR
First Semester ..... Units
ACRT 53A Advanced ACR .....  5
AT 10 Tech Computer Applications .....  2
AT 131 Technical Report Writing .....  3
Total 10
Second Semester ..... Units
ACRT 53B Advanced ACR. .....  5
AT 40 Preparing for Employment Opportunities. .....  3
AT 120 Industrial Science .....  3
Total 11

Recommended Electives: ACRT 55; AUTOT 19, 54, 282A Note: Associate degree requirements are listed on page 35.
AUTOMOTIVE TECHNOLOGY - MAJor \#8051
Satisfactory completion of this curriculum prepares the student for entry-level employment as a skilled technician in the automotive service and repairindustry. Students will perform actual service and repair procedures in theautomotive laboratory. This curriculum has been certified by the NationalAutomotive Technicians Education Foundation (NATEF).
ASSOCIATE IN SCIENCE DEGREE AND
CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester Units Occupational Safety and Health .....  2
AT 21
AT 21
*AUTOT 9 Auto Essentials .....  3
$\dagger$ AUTOT 51 Principles of Engine Theory .....  3
$\dagger$ AUTOT 51L Automotive Engine Laboratory .....  2
AUTOT 52 Automotive Electrical Systems .....  5
AUTOT 53 Engine Performance .....  5
Total 20
Second Semester ..... Units
AT 10 Technical Computer Applications........................... 2
AT 130 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.......... 5Total 17-19
SECOND YEAR

| First Semester | Units |
| :--- | :--- | ---: |
| AT 40 | Preparing for Employment Opportunities.............. 3 |
| **AUTOT 19 | Work Experience (Coop), Occup ......................2-4 |
| AUTOT 54 | Suspension, Steering, and Wheel Alignment.......... 5 |
| AUTOT 56 | Automotive Braking Systems ............................... 5 |

Second Semester Units**AUTOT 19 Work Experience (Coop), Occup2-4
WELD 1 Exploring Welding/Metals
Electives ..... 3 .....  6
Total 11-13
Recommended Electives: AT 120, 131; AUTOT 58; BA 20; ENGL 126; HLTH 1; PHOTO 5; POLSCI 110; 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 35.
CERTIFICATE OF ACHIEVEMENT ++ 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 130 Industrial Math ..... 3
ATGM 54 Suspension, Steering, and Wheel Alignment. .....  .5
ATGM 56 Automotive Braking Systems .....  5
*AUT0T 9 Automotive Essentials .....  3
Electives ..... 3Total 21
Spring Semester Units
AT 131 Technical Report Writing. .....  3
ATGM 52 Automotive Electrical Systems .....  5
**AUTOT 19 Work Experience (Coop), Occup .....  4
Electives .....  6
Total 1
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
Spring Semester ..... Units
ATGM 55 Power Trains: Transmissions/Transaxles, Differentials, and Driveaxles .....  5
AT 120 Industrial Science .....  3
**AUTOT 19 Work Experience (Coop), Occup .....  4
Electives .....  3
Total 15
Summer Semester ..... Units
ATGM 57 Automotive Heating, Ventilation, Air Conditioning, and Advanced Electronics .....  5
Electives .....  1
Total 6

Recommended Electives: AUTOT 58; BA 20; ENGL 126; HLTH 1; PE; PHOT0 5; POLSCI 110; 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 successfully completes the above course work and the associate degree requirements. (Associate in science degree requirements are listed on page 35 of this catalog.)

[^5]
## 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, 22A or CLS 20, or PHOTO 10. .....  3
SPEECH 1 Intro to Public Speaking, or
SPEECH 2 Interpersonal Communication .....  3
Physical Education ..... 1
Total 18
Units ..... Units
Second Semester
*SPAN 4 High-Intermediate Spanish ..... 4
HLTH 1 Contemporary Health Issues .....  3
*CLS 17 or MUS 3, 20, or 27 ..... 2-4
GEOG 2, 4A, or 4B ..... 3
MATH 103 Intermediate Algebra. .....  5
Physical Education .....  1
Total $\quad 18-20$
SECOND YEAR
First Semester ..... Units
*CLS/SOC 14 Soc of the Mexican-American Community .....  3
GEOG 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, orPSY $2 \quad$ General Psychology, orPSY 39Child Development.3
TA 12 Fund of Interpretation, orTA 41 \& 43 Beginning and Intermediate Acting, orSPEECH 12 Fund of Interpretation 3
Total 19-20
Second Semester ..... Units
BIOL 1 Principles of Biology, or
BIOL 3 Introduction to Life Science .....  4
HIST 1 Western Civilization to 1648, or
HIST 2 Western Civilization Since 1648. ..... 3
ART 2 Art Appreciation, orArt History 1, or
Art History 2 ..... 3
ART 6
Chicano Literature, or *CLS 21ENGL 1B, $44 \mathrm{~A} / \mathrm{B}, 45,46 \mathrm{~A} / \mathrm{B}, 48 \mathrm{~A} / \mathrm{B}$.. 3
POLSCI 2 American Government .....  3

## English 3 recommended. Required for full General Education Certification.

* Twenty (20) units required for major.


## BODY AND FENDER MECHANIC <br> 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 <br> FIRST YEAR

First Semester Units
+BSCA 10 Building Codes .................................................... 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 Materials of Construction..................................... 3
+\#Electives (Certificate of Completion only) ........................... 6
Total 12
SECOND YEAR
First Semester Units
ARCH 32 Strength of Materials........................................... 3
AT 10 Technical Computer Applications.......................... 2
AT 40 Preparing for Employment Opportunities............... 3
Total 8

+ Required courses for certificate of completion.
\# Electives for certificate may be selected from the following:
Units
BSCA 15 Plumbing Code \& Inspection ................................ 3
BSCA 16 Mechanical Code \& Inspection............................ 3
BSCA 17 National Electrical Code Part I............................. 3
BSCA 18 California Disabled Access Regulations.................. 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 35 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 10/10H | Introduction to Business, or |
|  | Honors Introduction to Business.................... 3 |
|  | Total |
| Second Semest*CIT 15 | ter Units |
|  | Computer Concepts ....................................... 3 |
| *BA 18 | Business and the Legal Environment................. 4 |
|  | Total |
| SECOND YEAR |  |
| First Semester Units |  |
| *ACCTG 4A/4AH | Financial Accounting, or <br> Honors Financial Accounting $\qquad$ .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/4BH | Managerial Accounting, or <br> Honors Managerial Accounting $\qquad$ . 4 |
| *ECON 1B | Introduction to Microeconomics ...................... 3 |
| *DS 23 | Business Statistics........................................ 4 |
|  | Total 11 |
| *CSUF transfer courses required to enter the SCbool of Business at CSUF |  |
| *Transfers as an elective |  |
| ***Satisfies CSUF's GE, B. 4 , and FCC's GE, D.2, and is required b, |  |
| ***satisfies CSUF's GE, D.8, and FCC's GE, B. 2 |  |
| Note: Associate degree requirements are listed on page 35. |  |
| BUSINESS LAW - MAJOR \#2053 |  |
| CERTIFICATE OF ACHIEVEMENT ++ Units |  |
| BA 10 | Introduction to Business............................... 3 |
| BA 18 | Business \& the Legal Environment................... 4 |
| BA 20 | Law \& the Legal System................................. 3 |
| BA31 | Human Resource Management........................ 3 |
|  | Total 13 |

## 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

 UnitsBA 50
BA 51
BA 52 Survey of Entrepreneurship ........................................ 1.5
Entrepreneurship Strategies. 1.5 ... 3 Total 6

| CERTIFICATE | Units |
| :---: | :---: |
| BA 31 | Human Resource Management.......................... 3 |
| BA 33 | Human Relations in Business............................ 3 |
| *BT 9 | Computer Applications, or |
| *BT 25 | Microsoft Office, or |
| *CIT 20 | Microsoft Office ...........................................3-4 |

Total 9-10

* Students have the option of BT 9, BT 25 or CIT 20


## LOGISTICS AND DISTRIBUTION MANAGEMENT MAJOR \#2054

A Certificate of Achievement in Logistics and Distribution Management prepares students for entry-level management and technical careers in the every-expanding field of logistics. The comprehensive program provides the student with a basic understanding of business principles and all areas related to the logistics and distribution industry. Students must complete required courses with a 2.0 or better GPA.
CERTIFICATE OF ACHIEVEMENT Units
BA 5 Business Communication..................................... 3
BA 33 Human Relations............................................... 3
BA 40 Supervision......................................................... 3
BA 55 Introduction to Logistics ....................................... 3
BA 56 Inventory Control Management ............................ 3
BA 57 Loss prevention................................................... 1.5
BA 58 Business Morality and Ethics................................ 1.5
BT 9 Computer Applications......................................... 4
Total 22

[^6]BUSINESS ADMINISTRATION/MARKETING, RETAILMANAGEMENT - MAJOR \#2051
The program prepares current and future retail employees for the fast paced, ever changing challenges in a competitive retail environment. Specific occupational preparation is provided in the following program.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT

First Semester ..... Units
BABT 5 Business Communications .....  3
BT 115 Refresher Math .....  3
CIT 15 Computer Concepts ..... 3
SPEECH 1 Introduction to Public Speaking ..... 3
Total 12
Second Semester ..... Units
BA 10 Introduction to Business ..... 3
BT 131 Applied Accounting ..... 4
MKTG/FM 10 Principles of Marketing. .....  3
Total 10
Third Semester ..... Units
BA33 Human Relations in Business ..... 3
MKTG 12 Advertising and Promotion ..... 3
MKTG/FM 14 Retailing. ..... 3Total 9
Note: Students qualify for the certificate of achievement upon completion of the major requirements listed above. In addition, those completing the associate degree requirements on page 35 of the catalog, upon application, will be awarded the associate in science degree.

## BUSINESS \& TECHNOLOGY PROGRAM

## ASSOCIATE IN SCIENCE,

 CERTIFICATE OF ACHIEVEMENT, AND CERTIFICATEA student may earn one certificate of achievement and eight certificates in the business \& technology program. To get the additional certificates, 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................................................ 4
BT 2 Word Processing I................................................ 4
BT 4 Ten-Key Calculation............................................. 2
BT 6 Records Management ......................................... 3
BT 11 Today's Office...................................................... 2
*BT 13 Applied Business Correspondence. .....  .2
BT 23 Job Search and Workplace Skills .....  3
BT 112 Business English .....  2
BT 115 Refresher Math .....  3
BT 116 Spelling \& Vocabulary Building .....  .2
BT 122 Typing Skillbuilding .....  1
BT 123 Ten-Key Skillbuilding .....  1
Total 29

* This course may be offered once a year. Check with division office (BE-110).
ADMINISTRATIVE ASSISTANT EMPHASIS -
MAJOR \#2212
Units
Required Core Courses (see Clerical Emphasis) ..... 29
BA/BT 5 Business Communications .....  3
BT 9 Computer Applications. .....  4
*BT $10 \quad$ Computer Applications II .....  4
BT 19 Work Experience (Coop), Occup .....  2
Total 42
* This course may be offered once a year: Check with division office (BE-110).
LEGAL ADMINISTRATIVE ASSISTANT EMPHASIS - MAJOR \#2102
Units
Required Core Courses (see Clerical Emphasis) ..... 29
BT 9 Computer Applications .....  4
*BT 10 Computer Applications II .....  4
BT 19 Work Experience (Coop), Occup .....  2
BT 140/PLEGAL 156 Legal Office Administration .....  2
Total 41
*This course may be offered once a year. Check with division office (BE-110).
MEDICAL ADMINISTRATIVE ASSISTANT
EMPHASIS - MAJOR \#2381
Units
Required Core Courses (see Clerical Emphasis) ..... 29
BT 9 Computer Applications .....  4
*BT 10 Computer Applications II .....  4
BT 19 Work Experience (Coop), Occup .....  2
BT 43 Medical Office Vocabulary. .....  1
BT 148 Medical Insurance Forms .....  3
BT 240 Legal Issues in Medical Billing. .....  1 ..... Total 44

[^7]MEDICAL BILLING CLERK EMPHASIS - MAJOR \#2421 Units
Required Core Courses (see Clerical Emphasis) .......... 29
BT 43 Medical Office Vocabulary................................ 1
BT 147 Medical Manager............................................ 2
BT 148 Medical Insurance Forms ................................ 3
BT 240 Legal Issues in Medical Billing......................... 1 Total 36

MEDICAL RECEPTIONIST EMPHASIS - MAJOR \#2241 Units Required Core Courses (see Clerical Emphasis) .......... 29
BT 9 Computer Applications................................... 4
BT 43 Medical Office Vocabulary............................... 1
BT 148 Medical Insurance Forms .................................. 3
BT 240 Legal Issues in Medical Billing.......................... 1
Total 38
MEDICAL TRANSCRIPTIONIST EMPHASIS - MAJOR \#2371


OFFICE PROFESSIONAL EMPHASIS - MAJOR \#2213

*This course may be offered once a year: Check with division office (BE-110).

WORD PROCESSOR EMPHASIS - MAJOR \#2322

Required Core Courses (see Clerical Emphasis) ........... 29
BT 9 Computer Applications ........................................ 4
*BT 10 Computer Applications II...................................... 4 Total 37

* This course may be offered once a year. Check with division office (BE-110).
BUSINESS OFFICE ASSISTANT - MAJOR \#2201
CERTIFICATE OF ACHIEVEMENT ..... Units
BT 1 Beginning Typing. .....  3
BT 2 Word Processing I. .....  3
BT 9 Computer Applications .....  4
BT 19 Work Experience (Coop), Occup ..... 3
BT 20 Resume/Interview ..... 1 .5
BT 21 Working Relationships ..... 1.5BT 29BT 116*BT 250BT 270BT 271BT 272
Microsoft Word II. ..... 1.5
Spelling \& Vocabulary ..... 2
Office Skills Lab. ..... 1-1
Business Math \& 10 Key .....  2
Business Grammar Fundamentals .....  2
Office Procedures. .....  1
BT 273 Filing. .....  1
Total 27.5
* Course is taken twice.
Note: Students must demonstrate the ability to type 40 words per minute with$97 \%$ accuracy on three 5-minute timed writings and key 110 correctstrokes per minute on the ten-key calculator.
COMPUTER APPLICATIONS SOFTWARE -
MAJOR \#2202
CERTIFICATEBT
Computer Applications .....  4
BT 10 Computer Applications II .....  4
BT 14/CIT 17 Windows .....  2
BT 106 Computer Keyboarding ..... 1.5
Total 11.5
MEDICAL BILLING ASSISTANT - MAJOR \#2242
CERTIFICATE OF ACHIEVEMENT ..... Units
BT 1 Beginning Typing. .....  4
BT 19 Work Experience (Coop), Occup ..... 3
BT 20BT 21BT 27BT 43BT 116BT 123BT 147BT 148BT 240

| BT 272 | Office Procedures............................................ |
| :---: | :---: |
| BT 273 | Filing .......................................................... 1 |
|  | Total 28 |
| Note: Students must maintain an average GPA of 2.0; demonstrate the ability to type 40 wordsper minute with 97\% accuracy; and key 110 correct strokes per minute on the ten-key calculator. |  |
| MICROSOFT WORD - MAJOR \#2323 |  |
| Designed to assist students pursuing MOUS certification. |  |
| CERTIFICATE | Units |
| BT 28 | Microsoft Word I .............................................. 2 |
| BT 29 | Microsoft Word II............................................. 2 |
|  | Total |
| CLERICAL TRAINING |  |
| CERTIFICATE |  |
| CTCTC 370 | Office Assistant Applications (Major \#246V) ...... 600 |
| BUSINESS MANAGEMENT - MAJOR \#2181 |  |
| ASSOCIATE IN SCIENCE DEGREE <br> Completion of 27 units including 12 units of the required core courses plus an additional 15 units of elective courses are required for the associate in science degree. |  |
|  |  |
| CERTIFICATE OF ACHIEVEMENT <br> A certificate of achievement in Business Management may be awarded for the successful completion of 20 units. The 20 units may include any combination of required core or elective courses listed below. A minimum grade of " $C$ " in each course is required. |  |
|  |  |
| REQUIRED CORE COURSES Units |  |
| BA/BT 5 | Business Communication................................ 3 |
| BA 10 | Introduction to Business ................................... 3 |
| BA 33 | Human Relations in Business............................ 3 |
| *BA 40 | Supervision and Leadership Skills, or |
| BA 43 | Principles of Management ........................... 3 |
|  | Total 12 |
| ELECTIVES | Units |
| ACCTG 4A | Financial Accounting...................................... 4 |
| BA 18 | Business \& Legal Environment.......................... 4 |
| BA 20 | Law \& the Legal System ................................... 3 |
| BA 28 | E-Law \& Ethics.............................................. 3 |
| BA 30 | Personal Finance........................................... 3 |
| BA 31 | Human Resource Management.......................... 3 |
| BA 34 | Fundamentals of Investing.............................. 3 |

BA 35 Business Financial Management ..... 3BA 38*BA 40*BA 43BA 51BT 131CIT 15
MKTG 10MKTG 11MKTG 12MKTG 14
Operation of Small Business .....  3
Supervision and Leadership. ..... 3
Principles of Management ..... 3
Survey of Entrepreneurship ..... 1.5
Applied Accounting .....  .4
Computer Concepts .....  3
Principles of Marketing. .....  3
Salesmanship. .....  3Either BA 40 or BA 43 may be taken as a required course. The other class optionmay be taken as an elective course.Note: Associate degree requirements are listed on page 35.
CERTIFICATES
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 Financial Management. .....  3
2.Business Finance and Investments - Major \#2271 Units BA 35 Business Financial Management. .....  3
BA 34 Fundamentals of Investing ..... 3
3.Human Relations and Communications - Major \#2510 UnitsBA/BT 5 Business Communications 3
BA 33 Human Relations in Business. .....  3
4.Human Resources and Relations - Major \#2520 Units
BA 31 Human Resources Management .....  3
BA 33 Human Relations in Business. .....  3
5.Management and Supervision - Major \#2182 ..... Units
BA 40 Supervision and Leadership. .....  3
BA 43 Principles of Management .....  3
6.Personal Finance and Investments - Major \#2032 UnitsBA 30 Personal Finance. 3
BA 34 Fundamentals of Investing. .....  3
7. Small Business Management - Major \#2030 ..... Units
BA 38 Operation of the Small Business. .....  3
BA 51 Survey of Entrepreneurship ..... 1.5

## 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 Mexican American History.................................... 3
CLS/SOC 14 Sociology of the Mexican American Community .. 3
CLS 21 Chicano Literature .............................................. 3
Total 12
COURSE OPTIONS: Select 8 Units Units
CLS 13 Politics and the Chicano-Latino Community ........ 3
CLS 17 Beginning Mexican Folklorico Dance.................... 4
CLS 18 Latin Jazz Ensemble............................................. 3
CLS $20 \quad$ Chicano Art........................................................ 3
CLS 22 Pre-Columbian Art.............................................. 3
CLS/WSTS 24 La Chicana and Latina ........................................ 3
CLS 27 Adv Mexican Folklorico Dance .............................. 4
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 <br> Units

CHDEV 3 Early Childhood Curriculum........................... 3
CHDEV 6 Infant-Child Health and Safety. ... 2

CHDEV 15 Diversity Issues in Early Care and Education Programs ... 3
CHDEV 30 Child, Family, and Community ............................ 3
CHDEV 37A Early Childhood Programs and Practices .............. 3
CHDEV 37B Early Childhood Programs and Practices .............. 4
CHDEV 39 Child Development.............................................. 3
Total 21
COURSE OPTIONS: Select 7 Units Units
CHDEV 5 Parent Education ................................................ 3
CHDEV 8A School Age Child: Growth \& Develop..................... 3
CHDEV 8B Programs for School-Age Child Care..................... 3
CHDEV 9 Music, Movement and Drama for
Young Children 3

CHDEV 10

Science and Math for Young Children
.. 3

CHDEV 11 The Young Child w/Special Needs ......................... 3
CHDEV 12* Child Abuse......................................................... 3
CHDEV 14* Youth Suicide...................................................... 1
CHDEV 16 Introduction to Early Intervention ........................ 3
CHDEV 17A Infant Development - Birth to Age 3..................... 3
CHDEV 17B Adv Infant/Toddler Development \& Care................ 3
CHDEV 18A Child Development Internship...........................2-4
CHDEV 18B Child Development Internship............................2-4
CHDEV 19 Work Experience (Coop), Occup ........................1-4
CHDEV/PSY 38* Lifespan Development........................................... 3
CHDEV 40A Administration of Early Childhood Programs ....... 3
CHDEV 40B Advanced Admin of Early Childhood Programs..... 3
CHDEV/FN 42 Child Nutrition................................................... 3
CHDEV 43 Children's Literature ........................................... 3
CHDEV 44 High Scope Educational Approach ........................ 2
CHDEV 45 Adult Supv in Early Childhood
Education Classrooms 2

CHDEV 46

CHDEV 47
CHDEV 48
CHDEV 15
CHDEV 15
CHDEV 15
CHDEV 16
CHDEV 162 Independent Living Skills ..................................... 1
CHDEV 165A Topics in Curriculum........................................1-3
CHDEV 165B Topics in Family and Community......................1-3
CHDEV 165C Topics in Administration...................................1-3

## 122 Child Development

Note: Courses designed with an ${ }^{(*)}$ ) do NOT meet the requirements for course work for the California Child Development Permit, which is required for employment in State-funded child development programs. Courses taken to fulfill the 24 units required by the Child Development Permit must focus predominately on the child under the age of 6 years.

## Suggested Sequence of Courses

## FIRST YEAR

First Semester Units
CHDEV 3 Early Childhood Curriculum................................. 3
CHDEV 30 Child, Family, and Community ............................ 3
CHDEV 39 Child Development............................................... 3 Total 9

Second Semester Units
CHDEV 6 Infant-Child Health and Safety............................. 2
CHDEV 15 Diversity Issues in Early Care and
Education Programs ....................................... 3
CHDEV 37A Early Childhood Programs and Practices .............. 3
Child Development Course Options ................................................... 2
Total 10

## SECOND YEAR

First Semester Units
Child Development Course Options ......................................................... 5
Second Semester Units
CHDEV 37B Early Childhood Programs and Practices .............. 4
Total 28
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 short-term 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 ACHIEVEMENT ++ | Units |
| :--- | :--- | :--- |
| CHDEV 3 | Early Childhood Curriculum................................. 3 |  |
| CHDEV 6 | Infant-Child Health and Safety........................ 2 |  |
| CHDEV 18A | Child Development internship, and/or |  |
| CHDEV 18B | Child Development Internship, and/or |  |
| CHDEV 19 | Work Experience (Coop), Occup ..................... 3 |  |
| CHDEV 30 | Child, Family, and Community............................ 3 |  |
| CHDEV 39 | Child Development, or |  |
| CHDEV 150 | Basic Child Growth and Development.............. 3 |  |
|  |  | Total 14 |

## EARLY INTERVENTION ASSISTANT - MAJOR \#5617

Current legislation mandates that infants and young children with disabilities and other special needs, be served in the "natural environment", starting at birth. This certificate of achievement is designed to prepare students to work with infants, toddlers and young children with disabilities and other special needs in early intervention settings and inclusive early care and education settings. A student who completes the certificate, is qualified to work at the Early Intervention Assistant I level of the California Early Start Personnel Model.*

Completing the Early Intervention Assistant Certificate plus the Associate Degree in Child Development qualifies a student to work at the Early Intervention Assistant II level of the California Early Start Personnel Model. The Early Intervention Assistant certificate units apply to the Associate Degree in Child Development.**

## ASSOCIATE OF SCIENCE AND <br> CERTIFICATE OF ACHIEVEMENT

Suggested sequence of courses for certificate:
FIRST YEAR Units
CHDEV 3 Early Childhood Curriculum................................ 3
CHDEV 6 Infant-Child Health and Safety............................. 2
CHDEV 15 Diversity Issues in Early Care and Education......... 3
CHDEV 17A Infant Development-Birth to Age 3........................ 3
CHDEV 30 Child, Family, and Community ............................. 3
CHDEV 39 Child Development.............................................. 3
Total 17
SECOND YEAR
CHDEV 11 The Young Child with Special Needs ...................... 3
CHDEV 16 Introduction to Early Intervention ........................ 3
CHDEV 17B Advanced Infant Toddler Development and Care... 3
CHDEV 48 Children with Challenging Behaviors ................... 3
Total 12

* The Early Start Personnel Model has been recommended, for the professional field of Early Intervention, by the California Interagency Coordinating Council. The Interagency Coordinating Council is the statewide advisory body for California's Early Start Program.
** To graduate with the Associates Degree in Child Development student must take two additional courses, beyond the Early Intervention Assistant certificate: CHDEV 37A and CHDEV 37B

Note: For graduation with an Associate Degree in Child Development, add CHDEV 37A and CHDEV 37B to either year one or two.
++ Pending State Chancellor's Office Approval.
Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

## 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 ACHIEVEMENT ++ Units
CHDEV 3 Early Childhood Curriculum............................... }
CHDEV 6 Infant-Child Health and Safety............................ }
CHDEV 30 Child, Family, and Community........................... }
CHDEV 39 Child Development, or
    CHDEV 150 Basic Child Growth and Development............... }
CHDEV 151 Intro to Family Child Care.................................. }
CHDEV 152 Quality Program in Family Child Care ................. }
    Total 13
```


## SUGGESTED SEQUENCE OF COURSES

| First Semester | Units |
| :---: | :---: |
| CHDEV 39 | Child Development, or |
| 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 |
|  | Total |

## Second Semester <br> Units

CHDEV 3 Early Childhood Curriculum................................. 3
CHDEV 6 Infant-Child Health and Safety.............................. 2
CHDEV 30 Child, Family, and Community ............................ 3
Total 8

## FOSTER CARE - MAJOR \#5580

This 14-unit program is designed to train foster parents in specialized areas, acquiring knowledge and skills necessary for caring for special needs children.
CERTIFICATE OF ACHIEVEMENT ++ Units
CHDEV 12 Child Abuse................................................................... 3
CHDEV 30 Child, Family, and Community ............................. 3
CHDEV 39 Child Development, ............................................ 3
CHDEV 161 Intro to Foster Parenting...................................... 1
CHDEV 162 Independent Living Skills ..................................... 1
Total 14

[^8]
## 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 3, $9,10,37 \mathrm{~A} / \mathrm{B}, 43$ or 44 (DSS*3)

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

Child Development 17A, Infant/Development-Birth to Age 3 (DSS*4)

Students who plan to work with children ages 6-12 years must complete 12 units including:

Child Development 8B, 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 has 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 39 or 150
Child Development 30

Child Development 3....
plus 3 additional units of child development coursework

## Teacher level: 40 units

(Experience: 175 days of $3+$ hours per day within 4 years of application)

Completion of the Associate Teacher level (above) plus 12 additional units in Child Development and 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 Cbild 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, and 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 17A)

## 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.

## 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.
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 <br> 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 131 Technical Report Writing..................................... 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
CADD 42 Mechanical Drawing III....................................... 3
CAM $10 \quad$ CNC Mill Programming \& Operation I .................. 3
Total 12
Recommended Elective: DRAFT 19.
Note: Students planning to receive the associate in science degree must meet the associate in science degree requirements on page 35.

COMPUTER AIDED MANUFACTURING
FORMERLY MANUFACTURING TECHNOLOGY \&
MACHINIST- MAJOR \#8271
The two-year A.S. degree/certificate Computer Aided Manufacturing program is designed for students who have a strong interest in hands-on experience both in the classroom as well as in industry. Core courses ensure students with a knowledgeable foundation using Fresno City College for the Computer Aided Design (CAD) 2D and 3D, Computer Numerical Control Programming (CNC), Machine Operation, a variety of High Tech Materials, Computer Application and Computer Measuring Instrument. AutoCAD, AutoCAD LT, Solid Works, Microsoft Office and MasterCAM software are currently used. The program is diverse: CNC Vertical Milling Centers, CNC Lathes and CNC Routers 3 axis and 5 axis. These software and machines give students the most experiences possible, which will lead to more job opportunities in the local workforce.
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester Units
AT 10 Technical Computer Applications......................... 2
$\begin{array}{lc}\text { AT 130 } & \text { Industrial Mathematics, or } \\ \text { MATH 101 } & \text { Elementary Algebra (or higher level)..............3-5 }\end{array}$
CAM $10 \quad$ CNC Mill Programming \& Operation I .................. 3
DRAFT 12 Board Drafting Practices........................................ 3
Total 11-13
Second Semester
Units
AT 21 Occupational Safety \& Health............................... 2
CADD 14 Introduction to Computer Aided Drafting .............. 3
CAM 20 CNC Mill Programming \& Operation II................. 6
Total 11
SECOND YEAR
First Semester
Units
CADD 24 Advanced Computer Aided Drafting....................... 3
CADD 26 Intro to 3D Solid Modeling ................................... 3
CAM 30 CNC Mill Programming \& Operation III ............... 6
Total 12
Second Semester Units
AT 40 Preparing for Employment Opportunities............. 3
CAM 40 CNC Lathe Programming \& Operation .................. 3
CAM 50 Special Projects and Porffolio Presentations.......... 3
WELD 1 Exploring Welding/Metals, or
WELD 2A Introduction to Welding Technology................3-6
Total 12-15
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 35.

COMPUTER INFORMATION TECHNOLOGY FORMERLY INFORMATION SYSTEMS

## COMPUTER INFORMATION SYSTEMS - MAJOR \#2701

This program provides a strong academic preparation in Information Systems and Computer Science. The courses give students the fundamentals in current programming languages and a broad foundation in Business Administration. This major will prepare students for transfer as an Information Systems major to most transfer schools as well as entry-level employment as a computer programmer. Transfer students should obtain complete information on 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
CIT 15 Computer Concepts .............................................. 3
Total 10
Second Semester Units
ACCTG 4B Managerial Accounting........................................ 4
BA 18 Business and the Legal Environment.................... 4
CIT 60 Beginning Visual Basic ........................................ 3
Total 11
SECOND YEAR
First Semester Units
$\begin{array}{cc}\text { CIT } 63 & \text { Beginning Java Programming, or } \\ \text { CIT } 66 & \text { Beginning C++ Programming........................ } 3\end{array}$
DS 21 Finite Mathematics .............................................. 3
ECON 1A Principles of Macroeconomics.............................. 3
Total 9
Second Semester Units
CIT 68 Advanced Programming Applications, or
CIT 64 Advanced Java Programming, or
CIT 67 Advanced C++ Programming.......................3-4
DS 23 Business Statistics................................................. 4
ECON 1B Principles of Microeconomics.............................. 3 Total 10-11
Note: Requires additional general education units for AS degree.

## 126 Computer Information Technology

DATA ENTRY OPERATOR - MAJOR \#2713
This program is designed to prepare student for entry level employment as a data entry operator.
CERTIFICATE OF ACHIEVEMENT

| First Semester | Units |
| :---: | :---: |
| BA 10 | Intro to Business............................................. 3 |
| *BT 1 | Beginning Typing.......................................... 4 |
| BT 112 | Business English ............................................. 2 |
| DS 117 | Business Math ................................................ 3 |
|  | Total 12 |
| Second Semest | er Units |
| BT 2 | Word Processing I........................................... 4 |
| BT 21 | Working Relationships.....................................1.5 |
| BT 20 | Resume/Interview ........................................... 1.5 |
| CIT 12 | Computer Literacy.......................................... 3 |
|  | Total 10 |

* Student can place out of this class by passing the appropriate test.


## MCSE CORE - MAJOR \#2721

Designed to meet the training needs for qualified entry-level Microsoft network technicians. It is also designed to help prepare students for the core requirements for the Microsoft Certified Systems Engineer (MCSE) certification tests.

CERTIFICATE UNITS
CIT 50 Fundamentals of Networking ............................... 4
CIT 51 MCSE Network Infrastructure................................ 4
CIT 52 MCSE Directory Services....................................... 4
Total 12
MCSE NETWORKING - MAJOR \#2722
Designed to meet the training needs for qualified entry-level MCSE network technicians. It is also designed to help prepare for the MCSE certification tests.
CERTIFICATE OF ACHIEVEMENT Units
CIT 50 Fundamentals of Networking............................... 4
CIT 51 MCSE Network Infrastructure............................... 4
CIT 52 MCSE Directory Services ...................................... 4
CIT 53 MCSE Directory Infrastructure.............................. 2
CIT 54 MCSE Network Services....................................... 2
CIT 55 MCSE Network Security......................................... 4
CIT 56 MCSE ISA........................................................... 4
Total 24

## MICROCOMPUTER SOFTWARE SPECIALIST MAJOR \#2705

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; with 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
CIT 15 Computer Concepts .............................................. 3
MATH 101 Elementary Algebra (if needed)............................. 5
Total 11.5 or 16.5
Second Semester Units
CIT 17 Windows ............................................................ 2
CIT 20 Microsoft Office .................................................. 3
CIT 80 Internet Basics.................................................... 2
CIT 81 World Wide Web Research..................................... 2
Total 9
SECOND YEAR
First Semester Units
CIT 29 PowerPoint........................................................ 1
CIT 45 Data Communications........................................ 3
CIT 60 Beginning Visual Basic ....................................... 3
Total 7
Second Semester Units
CIT 19 Work Experience (Coop), Occup ........................... 2
CIT 21 Advanced Microsoft 0ffice ..................................... 3
Total 5
Recommended electives: CIT 68, CIT 86, CIT 87, CIT 260
Note: Requires additional general education units for AS degree.

MICROSOFT ACCESS - MAJOR \#2707
This certificate option is designed to assist students pursuing MOUS certification.

| CERTIFICATE | Units |
| :---: | :---: |
| CIT 26 | Database Fundamentals .................................... 1.5 |
| CIT 27 | Advanced Databases .......................................... 1.5 |
|  | Total 3 |

Note: Courses in the program have CIT 12 or CIT 15 as prerequisites.

| MICROSOFT EXCEL - MAJOR \#2709 |  |
| :---: | :---: |
| This certificate option is designed to assist students pursuing MOUS certification. |  |
| CERTIFICATE | Units |
| CIT 23 | Spreadsheet Fundamentals........................... 2 |
| CIT 24 | Advanced Spreadsheets................................. 2 |
|  | Total |
| Note: Courres in the program bave CIT 12 or CIT 15 as prerequisites. |  |
| MICROSOFT OFFICE - MAJOR \#2711 |  |
| This certificate option is designed to assist students pursuing MOUS certification. |  |
| CERTIFICATE Units |  |
| CIT 20 | Microsoft Office ........................................ 3 |
| CIT 21 | Advanced Microsoft Office............................. 3 |
|  | Total |
| Note: Courses in the program have CIT 12 or CIT 15 as prerequisites. |  |
| NETWORKING/COMPUTER TECHNICIAN MAJOR \#2720 |  |
| This option is designed to meet the training needs for qualified entry-level microcomputer and networking technicians. |  |
| ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |
| First Semester Units |  |
| CIT 15 | Computer Concepts ..................................... 3 |
| **CIT 45 | Data Communications................................... 3 |
| EST 50 | Introduction to Electronics........................... 2.5 |
| EST 60 | A+PC Maintenance..................................... 3 |
| EST 61 | Networking Essentials ................................... 3 |
|  | Total 14.5 |
| Second Semester Units |  |
| *BT 20 | Resume/Interview ...................................... 1.5 |
| *BT 21 | Working Relationships................................... 1.5 |
| BT 112 | Business English ....................................... 2 |
| CIT 40 | Computer Operating Systems........................... 4 |
| CIT 50 | Fundamentals of Networking.......................... 4 |
| EST 55 A | Digital Concepts .......................................... 3 |
| EST/CIT 19 | Work Experience (Coop), 0ccup ...................... 2 |
|  | Total 18 |
| * AT 40 can by substituted for BT 20 and BT 21. |  |
| ** EST 57 may be substituted for CIT 45. |  |
| Note: Requires add | onal general education units for AS degree. |

## PREPARATION IN MICROSOFT OFFICE MAJOR \#2710

This certificate option is designed to assist students pursuing MOS certification.
CERTIFICATE OF ACHIEVEMENT ++
First Semester
BT 28 Microsoft Word I $\qquad$
BT 29 Microsoft Word II.2

Microsoft Office
CIT 20 .....  3
Spreadsheet Fundamentals. CIT 23
CIT 24 Advanced Spreadsheets. .....  .....  2
Total 11
Second Semester Units
BT 27 Microsoft Outlook. .....  1
CIT 21 Advanced Microsoft Office. .....  3
CIT 26 Database Fundamentals .....  2
CIT 27 Advanced Database. .....  2
CIT 29 PowerPoint .....  1
Total ..... 9
Note: Courses in the program have CIT 12 or CIT 15 as prerequisites.
SYSTEM SUPPORT SPECIALIST - MAJOR \#2723This option is designed to meet the training needs for qualified entry-levelsystems support personnel.
CERTIFICATE
SUGGESTED SEQUENCE OF COURSES
Fall Semester Units
CIT 40 Computer Operating Systems. .....  4
CIT 45 Data Communication .....  3
Total
Spring Semester ..... Units
EST $60 \quad$ A+PC Maintenance. .....  3
CIT 238 A+/Server+Systems Fundamentals. .....  3
Total 6
WEB PAGE DEVELOPMENT - MAJOR \#2741
This certificate option is designed to assist students who would like to
develop web pages.
CERTIFICATE ..... Units
CIT 80 Internet Basics .....  2
CIT 86 Web Page Development I .....  2
CIT 87 Web Page Development II .....  2Total 6
++ Pending State Chancellor's Office Approval.

## 128 Computer Information Technology

| WEBMASTER - MAJOR \#2740 |  |
| :---: | :---: |
| This option is designed to prepare students for work in the computer in dustry as Webmasters. Completing the program with the college graduation requirements leads to an AS degree; without the graduation requirements, student is eligible for a certificate of achievement. |  |
| ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT |  |
| SUGGESTED SEQUENCE OF COURSES |  |
| Program Prerequisi Math 101, Eleme English 125, Writ BT 106, Compute | sites (may be fulfilled by passing tests) entary Algebra or equivalent iting Skills for College ter Keyboarding |
| FIRST YEAR |  |
| First Semester Units |  |
| CIT 15 | Computer Concepts .......................................... 3 |
| CIT 80 | Internet Basics ............................................... 2 |
| CIT 81 | World Wide Web Research................................ 2 |
| GRC 39A | Graphic Design I .............................................. 3 |
|  | Total 10 |
| Second Semester Units |  |
| CIT 20 | Microsoft Office ............................................. 3 |
| CIT 40 | Computer Operating Systems............................ 4 |
| CIT 60 | Beginning Visual Basic ..................................... 3 |
| GRC 15 | Web Page Construction I .................................. 4 |
|  | Total 14 |
| SECOND YEAR |  |
| First Semester Units |  |
| BA 28 | E-Law and Ethics ............................................. 3 |
| CIT 63 | Beginning Java Programming........................... 3 |
| CIT 86 | Web Page Development I .................................. 2 |
| CIT 87 | Web Page Development II................................ 2 |
|  | Total 10 |
| Second Semester Units |  |
| $\begin{aligned} & \text { CIT } 68 \\ & \text { CIT } 64 \end{aligned}$ | Advanced Programming Applications, or <br> Advanced Java Programming $\qquad$ .3-4 |
| CIT 90 | Data Driven Websites Using Dreamweaver............ 3 |
| CIT 93 | Beginning JavaScript....................................... 3 |
|  | Total 9 -10 |

Recommended Electives: CIT 50, CIT 21, CIT 260, GRC 41.

## 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 <br> First Semester Units

ARCH 21 Materials of Construction................................... 3
AT 10 Technical Computer Applications....................... 2
AT 21 Occupational Safety \& Health........................... 2
AT 130 Industrial Mathematics.................................... 3
CONS 50A Basic Residential Construction........................... 3
Total 13
Second Semester Units
ARCH 22 Arch Practive ................................................. 3
AT 40 Preparing for Employment Opportunities............. 3
AT 131 Technical Report Writing................................ 3
CONS 50B Basic Resident Construction .............................. 3
Total 12
SECOND YEAR
First Semester Units
CONS 51 Resid Founds \& Framing..................................... 9
Total 9
Second Semester Units
CONS 53 Resid Ext \& Int Finishing .................................. 9
CONS 55 Roof Framing Systems.................................... 3
Total 12
Recommended Electives: BT 1; CONS 19, 56, 57; WELD 1.
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 35 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.
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
$\begin{array}{ll}\text { CRIM } 24 & \text { Control and Supervision in } \\ & \text { Corrections ...................................................... } 3\end{array}$
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........................................................3-4 Total 37-38
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 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........................................................... 3-4
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 $10 \quad$ Changing Roles of Women ................................... 3

## CERTIFICATE

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 |  |
| AT 10 | Technical Computer Applications, or |
| CIT 12 | Computer Literacy.....................................2-3 |
| CRIM 1 | Introduction to Criminology ............................ 3 |
| CRIM 4 | Principles and Procedures <br> of the Justice System .. 3 |
| CRIM 5 | Community Relations..................................... 3 |
| CRIM 6 | Concepts of 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 OPTI | NS: Select 9 Units Units |
| *AFRAM 1 <br> *AFRAM 4 | African-American Culture, or <br> African Civilization $\qquad$ 3 |
| *AMIND 31 <br> *AMIND 34 | American Indian Culture, or American Indian Contemporary Society $\qquad$ 3 |
| *CLS 11 <br> *CLS/S0C 14 | Introduction to Chicano-Latino Studies, or Sociology of the Mexican American <br> Community. $\qquad$ 3 |
| *PSY 2 | General Psychology........................................ 3 |
| *SOC 1A | Introduction to Sociology ................................ 3 |
| *SOC 2 | American Minority Groups................................ 3 |
| *WSTS 10 | Changing Roles of Women ............................... 3 |
| * Also fulfills degree or transfer requirements |  |
| Note: An associate in science degree will be awarded to any candidate who successfully completes a minimum of 60 units. The 60 -unit minimum must include associate degree requirements and 39 units of course work listed above. |  |

## FORENSIC EVIDENCE OPTION - MAJOR \#7732

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 Criminal Justice Communications .....  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
*CIT 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 whosuccessfully complete a minimum of 60 units. The 60 units must includeassociate degree requirements and 50 units of course work listed above.
CERTIFICATE OF ACHIEVEMENTREQUIRED COURSESUnits
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 Criminal Justice Communications .....  3
CRIM 12A Criminal Justice Report Writing .....  1
ANTHRO 1 Physical Anthropology .....  3
CADD 14 Introduction to Computer Aided Drafting .....  3
*CIT 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.


## LAW ENFORCEMENT OPTION - MAJOR \#8872

ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT TOTAL UNITS REQUIRED ..... 45
REQUIRED CORE COURSES ..... Units
CRIM 1
CRIM 3
CRIM 5
CRIM 6
CRIM 7
CRIM 8
AT 10 ..... CIT 12
Technical Computer Applications, or Computer Literacy ..... 2-3
Introduction to Criminology .....  3
Legal Aspects of Evidence .....  3
Community Relations. .....  3
Concepts of Criminal Law. .....  3
Concepts of Enforcement Services .....  3
Criminal Investigation .....  3
Juvenile Delinquency .....  3
*CRIM 13 The Constitution and Your Individual Rights.3Reading and Composition4
Total 36-37
COURSE OPTIONS: Select 9 Units
Units
*AFRAM 4 African Civilization ..... 3
*AMIND 34Introduction to Chicano-Latino Studies, orSociology of the Mexican AmericanCommunity.3
*PSY 2Introduction to Sociology3
*SOC 2Changing Roles of Women3
*Also fulfills degree or transfer requirements cessfully completes a minimum of 60 units. The 60 -unit minimum must include associate degree requirements and 45 units of course work listed above.

## Students Transferring from the Police Academy

Candidates who have completed the Basic Academy or the Reserve Level 1 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 from the Police Academy or a copy of their transcript. Forms are available in the Social Sciences 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. CERTIFICATE OF ACHIEVEMENT Units CRIM 3 Legal Aspects of Evidence..................................... 3 CRIM 4 Prin and Procedures of the Justice System ............. 3
CRIM 6 Concepts of 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
ENGL 1A Reading and Composition .................................... 4 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
DANCE 30 Dance Appreciation ............................................. 3

MUS 3 Music Fundamentals............................................ 3
PE 17
DANCE 9
Hatha Yoga, or
Dance Conditioning $\qquad$

* Class level dependent on entry-level experience.


## NONTRANSFER (PROFESSIONAL) PROGRAM

Students planning a career in dance upon leaving Fresno City College are urged to complete additional courses in physical education, music and theatre arts.
REQUIRED COURSES ..... Units
MUS 12 Music Appreciation. .....  3
PE 20 Athletic Training ..... 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 35 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. .....  4
DANCE 18 Intermediate Tap Dance. ..... 1
DANCE 21 Dance Workshop Performance ..... 2-4
DANCE 22 Dance Theatre Performance. ..... 1-4
DANCE 23 Selected Topics in Dance Workshop. ..... 2-4
DANCE 24 Selected Topics in Dance Theatre ..... 1-4
DANCE 27 Advanced Mexican Folklorico Dance. .....  4
MUS 12 Music Appreciation. .....  3
PE 17 Hatha Yoga .....  1
PE 20 Athletic Training .....  4
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 and other clinical examinations for licensing dental hygienists.

Dental hygiene students will be required, as part of the total dental hygiene program, to participate in service learning activities. These activities could include 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. Success ul 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 courses).

## 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.

## Background Check

Upon entry into the program, students may be required to obtain a background check.

## 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. Dental hygiene students must have working e-mail addresses.

## 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 3 A 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 Dental Emergencies ............................................ 1
DH 8A Patient Management.......................................... 1
DH 11 Local Anesthesia.................................................. 2.5
DH 12 Clinical Seminar Topics I .................................... 1
Total 14.5

## SECOND YEAR

| First Semester | Units |
| :---: | :---: |
| DH 1C | Periodontology .............................................. 2 |
| DH3B | 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 Semest | er Units |
| DH 1D | Applied Periodontics........................................ 1 |
| DH 5C | Clinical Dental Hygiene ................................... 5 |
| DH 7B | Community Dental Health II............................ 1 |
| DH8B | 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.
ASSOCIATE IN SCIENCE DEGREE AND
CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
First Semester Units
AT 10 Technical Computer Applications.......................... 2
EST 51 Direct Current Fund of Electronics ........................ 3
EST 52 Alternating Current Fundamentals ....................... 3
EST 54 Integrated Devices ............................................... 3
Total 11

[^9]
## 134 Electrical Systems Technology



Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

| CONTROL SYSTEMS - MAJOR \#8176 |  |
| :---: | :---: |
| Training in this specialized field is designed to prepare the student for employment as a control and instrument technician. |  |
| CERTIFICATE OF ACHIEVEMENT ++ |  |
| First Semeste | Units |
| EST 51 | Direct Current Fund of Electronics ..................... 3 |
| EST 55A | Digital Concepts ............................................. 3 |
| EST 57C | Voice and Data Cabling.................................... 3 |
| Second Semester |  |
| EST 58 | Programmable Logic Controllers ....................... 3 |
| EST 59 | Instrumentation Systems .................................. 3 |
| EST 55C | SCADA Systems ................................................ 2 |
|  | Total 17 |
| INDUSTRIAL CONTROLS - MAJOR \#8180 |  |
| This option is to prepare students for the Industrial Controls Certificate. By completing this option, a student will have training that emphasizes industrial control systems. |  |
| CERTIFICATE | Units |
| EST 50 | Introduction to Electronics or. |
| MMCTC 372 | Electrical Fundamentals.................................. 0 |
| EST 55A | Digital Concepts ............................................ 3 |
| EST 58 | Programmable Logic Controllers ....................... 3 |
| EST 59 | Instrumentation Systems ................................... 3 |
|  | Total 9-11.5 |
| NETWORK SECURITY - MAJOR \#8177 |  |
| Training is designed to prepare the student for employment as a networking technician emphasizing network security. |  |
|  |  |
| First Semeste | Units |
| EST 61 | Network Essentials ......................................... 3 |
| Second Semester |  |
| EST 62 | Router Theory and Technology ......................... 3 |
| Third Semester |  |
| EST 63 | Advanced Routing \& Switching......................... 3 |
| Fourth Semester |  |
| EST 64 | Advanced Networking and Management.............. 3 |
| Fifth Semester |  |
| EST 269A | Fund of Network Security-Firewalls .................... 3 |
|  | Total 15 |

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 REQUIRED33
REQUIRED CORE COURSES: ..... Units
*BT 20 Resume/Interview ..... 1.5
*BT 21 Working relationships ..... 1.5
BT 112/ENGL 159 Business English .....  2
CIT 15 Computer Concepts .....  3
CIT 40 Computer Operating Systems. .....  4
**CIT 45 Data Communications .....  3
CIT 50 Fundamentals of Networking .....  4
EST/CIT 19 Work Experience (Coop), Occup .....  2
EST 55A Digital Concepts ..... 3
EST 60 A+ PC Maintenance .....  3
EST 61 Networking Essentials .....  3
EST 62 Router Theory and Technology .....  3
Total 33
Suggested sequence of courses:
First Semester ..... Units
CIT 15 Computer Concepts. .....  3
**CIT 45 Data Communications .....  3
EST 55A Digital Concepts .....  3
EST 60 A+ PC Maintenance .....  3
EST 61 Networking Essentials .....  3
Total 15
Second Semester ..... Units
*BT 20 Resume/Interview ..... 1.5
*BT 21 Working relationships ..... 1.5
BT 112/ENGL 159 Business English .....  2
CIT 40 Computer Operating Systems. .....  4
CIT 50 Fundamentals of Networking .....  4
EST/CIT 19 Work Experience (Coop), Occup .....  2
EST 62 Router Theory and Technology .....  3
Total 18* AT 40 can be substituted for BT 20 and BT 21.** EST 57A and EST 57B may be substituted for CIT 45.
Note: Associate degree requirements are listed on page 35.

## 136 Electrical Systems Technology

## WIRELESS NETWORKS - MAJOR \#8178

Training is designed to prepare the student for employment as a networking technician emphasizing Wireless Local Area Networks

## CERTIFICATE

First Semester Units
EST 61 Network Essentials.............................................. 3
Second Semester
EST 62 Router Theory and Technology ............................. 3
EST 269B Fund of Wireless LANs .......................................... 3
Total 9

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................................................... 5
CHEM 1A General Chemistry.............................................. 5
ENGR 10 Intro to Engineering ............................................ 2
General Education ........................................................................... 2
Total 18

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 Introduction to Differential Equations .....  4
PHYS 4B Physics for Scientists \& Engineers .....  4
POLSCI 2 American Government .....  3
ENGR 4 Engineering Materials .....  3
General Education .....  4
Notes: 1. See page 43 for General Education requirements.2. *California State University, Fresno no longer requires Chemistry1B or Chemistry 8 .3. **California State University requires for Civil and AgriculturalEngineers: Engineering 1A, Plane Surveying; for Mechanical andIndustrial 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. .....  3MAJOR COURSE OPTIONS
SECOND YEAR
Section A
Select one of the course sequences (6 units total) from the following list:ENGL 44B World Literature Since the Renaissance,
or
ENGL 46A English Literature to 1800, and
English Literature from 1800 to the Present,or
ENGL 48A Introduction to American Literature to World War I, and
ENGL 48B Introduction to American Literature from World War I to the Present ................................................... 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 14 Folklore. ..... 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 17 African-American Literature. .....  3
ENGL 20 Asian-American Literature. .....  3
ENGL/WSTS 36 Women in Literature. .....  3
ENGL $40 \quad$ Critical Thinking about Literature .....  3
ENGL 42 Classic Myths ..... 3
ENGL 44A World Literature to the Renaissance. .....  3
ENGL 44B World Literature Since the Renaissance. ..... 3
ENGL 45 Contemporary World Literature. .....  3
ENGL 46A English Literature to 1800 .....  3
ENGL 46B English Literature from 1800 to the Present. .....  3
ENGL 47 Introduction to Shakespeare. .....  3
ENGL 48A Introduction to American Literature to World War I .....  3
ENGL 48B Introduction to American Literature from World War I to the Present ..... 3
LING 10 Introduction to Language ..... 3Note: An associate in arts degree in English will be awarded to any candidatewho successfully completes a total of 60 units which include associate degreerequirements and a minimum of 22 units of course work as listed above.Associate degree requirements are listed on page 35. General Educationrequirements for transfer certification are listed on page 43.
FASHION MERCHANDISING
MARKETING/HOME ECONOMICS - MAJOR \#2151
ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT
REQUIRED CORE COURSES ..... Units
FM 14 Retailing. ..... 3
*FM 19 Work Experience (Coop), Occup .....  2
FM 20 Textiles. .....  3
FM 21 Salesmanship .....  3
FM 22 Fashion Analysis. ..... 3
FM 28 Visual Merchandising. ..... 3
HEC 7 Interior Design ..... 3
Total Option Requirements 20
COURSE OPTIONS: Select 3 Units ..... Units
FM 37 Fashion History .....  3
HEC 24 Beginning Sewing .....  3
HEC 26 Intermediate Sewing. ..... 2
MKTG 10 Marketing .....  3
MKTG 12 Advertising .....  3

Students are required to establish eligibility for English 125 and 126 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 certifcate 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 35 .
> 3. General Education requirements for transfer certification are on page 43.

## 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 <br> REQUIRED CORE COURSES <br> ..... 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 $8 \quad$ Fire Hydraulics .....  3
FIRET 9 Fire Fighting Practices .....  3
FIRET 13 Arson and Fire Investigation Tech .....  3
*FIRET $130 \quad$ 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 27 units; bowever, only 6 units can be appliedto the associate in science degree and certificate of achievement.**FIRET 132 carries a value of 30 units; bowever, only 8 units can be appliedto the associate in science degree and certificate of achievement.

It is recommended that students establish eligibility for English 125 and 126 or ESL 67 and 68.
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.

Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

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

FOOD AND NUTRITION - MAJOR $\$ 5682$


Note: AS degree: The Food and Nutrition major consists of 37-40 units as indicated above. Students must complete the Food and Nutrition major and associate degree requirements listed on page 35. General Education requirements for transfer certification are on page 43.

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 | Units |
| :---: | :---: |
| FN 40 | Nutrition...................................................... 3 |
| FN 45 | Nutrition and Diet Therapy.............................. 3 |
| FSM 35 | Food Services, 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.
CERTIFICATE OF ACHIEVEMENT (ONLY)
REQUIRED CORE COURSES Units
CIT 15 Computer Concepts .............................................. 3
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 Services, Sanitation, Safety and Equipment .................................................. 2

Total 16-19
ELECTIVES Units
FN 1 Principles of Food Preparation............................. 3
FN 42 Child Nutrition .................................................. 3
FSM 38 Quantity Food Preparations.................................. 3
FSM 25 Food and Beverage Purchasing and Control.......... 2
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 | Food Services, Sanitation, Safety and Equipment. 2 |
| CIT 15 | Computer Concepts ......................................... 3 |
| FSM 19 | Work Experience (Coop), Occup .....................1-4 |
| FN 40 | Nutrition....................................................... 3 |
|  | Total 9-12 |
| Second Semest | er Units |
| FN 45 | Nutrition and Diet Therapy............................... 3 |
| FSM 15 | Food Production Management.......................... 2 |
| FSM 19 | Work Experience (Coop), Occup .......................2-4 |
| FSM 11 | Food Service Supervision or |
| BA 31 | Human Resources Management..................2-3 |
|  | Total 9-12 |
| Note: Occupational courses in the 19 may be rea of competenci program with the following achievement: constitute mos | work experience must accompany each of the following program: FN 45; FSM 11, 15, 35. Additional units of FSM quired if a student lacks experience needed for acbievement ies. Students who complete the Dietetic Service Supervisor 19 units of credit from the above and 1 course selected from list for a total of 20 units will be awarded a certificate of FSM 19, FSM 38, FSM 25, FN 1, FN 42. These 20 units also st 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 |
| :---: | :---: |
| ACCTG 4A | Financial Accounting...................................... 4 |
| CHEM 3A | Intro General Chemistry |
| CHEM 8A | Elementary Organic Chemistry ......................... 3 |
| *BIOL 1 | Principles of Biology ....................................... 4 |
| *BIOL 20 | Human Anatomy............................................ 4 |
| BIOL 22 | Human Physiology......................................... 5 |
| BIOL 31 | Microbiology |
| FN 40 | Nutrition....................................................... 3 |
| FN 1 | Principles of Food Preparation .......................... 3 |
| Math 11 | Elementary Statistics........................................ 4 |
| *MATH 101 | Elementary Algebra, or |
| *MATH 103 | Intermediate Algebra.................................. 5 |
| PSY 2 | General Psychology ........................................ 3 |
| Computer Class | ... 3 |
| * Prerequisite to r | red course(s). |

ACCTG 4A Financial Accounting........................................... 4
CHEM 3A Intro General Chemistry ....................................... 4
CHEM 8A Elementary Organic Chemistry ............................ 3
*BIOL 1 Principles of Biology ............................................ 4
*BIOL 20 Human Anatomy................................................. 4
BIOL 22 Human Physiology.............................................. 5
BIOL 31 Microbiology...................................................... 5
FN 40 Nutrition........................................................... 3
FN 1 Principles of Food Preparation ............................. 3
Math 11 Elementary Statistics............................................ 4
$\begin{array}{rr}\text { *MATH } 101 & \text { Elementary Algebra, or } \\ \text { *MATH } 103 & \text { Intermediate Algebra...................................... } 5\end{array}$
PSY 2 General Psychology............................................. 3
Computer Class ........................................................................... 3

* Prerequisite to required course(s).


## 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
Units
ACCTG 4A Financial Accounting, or
    BT 131 Applied Accounting. 4
```

```
BA }1
CIT }1
ECON 1B
FN 1
FN }3
    FN 40
FSM 11
FSM 15
FSM 19
FSM 25 Food and Beverage Purchasing and Control.......... }
FSM 38 Quantity Food Preparation ................................. }
FSM 35 Food Services, Sanitation, Safety
    and Equipment ................................................ }
MKTG 10 Marketing......................................................}
Total 35-39
```

4 units electives; 20 units General Education
Note: Associate degree requirements are listed on page 35.

## 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 Units
CIT 15 Computer Concepts .............................................. 3
FN 35 Nutrition and Health........................................... 3
FSM 35 Food Services, Sanitation, Safety $\begin{aligned} & \text { and Equipment ....................................................... } 2\end{aligned}$
FSM 160 Basic Skills: Basic Foods....................................... 3
FSM 162 Menu Planning for Child Nutrition....................... 3 Total 14

ELECTIVES: Select 10 Units Units
BT 6 Records Management .......................................... 3
FN 1 Principles of Food Preparation ............................. 3
FN 42 Child Nutrition.................................................. 3

| FSM 19 | Work Experience (Coop), Occup .......................................................................................................................................................... |
| :--- | :--- |

## 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 |
| GRC 18 | Graphic Production Methods 1... | ..... 3 |
|  |  | al 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 | er Units |
| AT 40 | Preparing for Employment Ops ......................... 3 |
| GRC 14 | Adobe Acrobat................................................ 3 |
| GRC 16, | Projects/Web 2, or |
| GRC 21 | Production Methods 2, or |
| GRC 23 | Multimedia 2.............................................. 4 |
|  | Total 10 |

Recommended Electives: AT 10; BT 6; GRC 13, 27, 39A, 40A; MKTG 11; PHOTO 10, 12.

## 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 Units
ART 40B Advanced Graphic Design ..................................... 2
AT 40 Preparing for Employment Ops............................. 3
GRC $30 \quad$ 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 12.5
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.

| CERTIF | ACHIEVEMENT ++ | Units |
| :---: | :---: | :---: |
| GRC 15 | Web Page Construction 1. |  |
| GRC 16 | Web Page Construction 2. | ... 4 |
| GRC 24 | Flash Animation. |  |
| GRC 25 | Fireworks/Dreamweaver... | ... 3 |
| GRC 26 | Macromedia Freehand | .... 3 |
|  |  |  |

## 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.

## Background Check

Upon entry into the program, students may be required to obtain a background check.

## ASSOCIATE IN SCIENCE DEGREE <br> SUGGESTED SEQUENCE OF COURSES <br> FIRST YEAR

First Semester ..... Units
BIOL5 Human Biology ..... 4
CIT 15 Computer Concepts ..... 3
HIT 1 Introduction to Health Care Records. ..... 3
HIT 10 Medical Terminology ..... 3
Second Semester Units
HIT 2 Legal Aspects of Health Information .....  2
HIT 4 Disease Process. .....  3
HIT 5 Introduction to Coding .....  3
HIT 12 Health Information in Alternative Settings .....  2
MA 2 Pharmacology .....  3Total 13
SECOND YEAR
Units First Semester ..... Units
CIT 20 Microsoft Office .....  3
HIT 3 Quality Improvement. .....  2
HiT 6 Coding and Reimbursement .....  3
HIT 7 Directed Practice .....  5
HIT 9 Hospital and Health Statistics .....  2
Total 15
Second Semester ..... Units
HIT 7 Directed Practice .....  5
HIT $8 \quad$ Health Information Managementand Supervision. 3
HIT 11 CPT Coding .....  2
Elective .....  .3
Total 13

## 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 5.
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 application soffware, finance, management, professional writing, and statistics.
3. The associate degree requires the completion of additional units and requirements listed with a 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
FN $45 \quad$ Nutrition \& Diet Therapy................................. 3

CERTIFICATE OF ACHIEVEMENT REQUIRED CORE COURSES Units
FN 45 Nutrition \& Diet Therapy .3
(
.
++ Pending State Chancellor's Office Approval.
Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.
FN 40 Nutrition, or

Nutrition and Health
Nutrition and Health ..... 3 ..... 3
HEC 7 Interior Design ..... 3
HEC/FM 20 Textiles. ..... 3
Total 12
COURSE OPTIONS: Select a Minimum of 8 Units ..... Units ..... 3
CHDEV/PSY 38 Lifespan Development
CHDEV/PSY 38 Lifespan Development
CHDEV/PSY 39 Child Development. ..... 3
CHDEV/FN 42 Child Nutrition. ..... 3
FN 1 Food Preparation. .....  3
FN 41 Sports Nutrition ..... 2
FN 43 Women's Nutrition ..... 2
FM 22 Fashion Analysis \& Wardrobe Selection ..... 3
FM 25 Professional Image ..... 3
FM 28 Visual Merchandising ..... 3
HEC 24 Beginning Sewing ..... 3
HEC 26 Intermediate Sewing ..... 2
SOC 32 Courtship, Marriage, Divorce, Family and Interpersonal Relationships ..... 3Note: An AS degree will be awarded on the successful completion of 60 units. (Seepage 35 for associate degree requirements.) General Education require-ments for transfer certification are on page 43.
SUGGESTED SEQUENCE OF COURSES
FIRST YEAR
First Semester ..... Units
HEC/FM 20 .....  3
Option (select one) 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 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, HEC 24, or HEC 26
FN 1, HEC 24, or HEC 26 ..... 2-3 ..... 2-3
Second Semester ..... Units
HEC 7 .....  3
Option (select one) from the Fashion Merchandising courses: FM 22, FM 25, FM 26 ..... 3

## HONORS PROGRAM

## HONORS CERTIFICATE OF ACHIEVEMENT ++

A Certificate of Achievement will be awarded to Honors students who successfully complete a minimum of 21 credits of Honors courses, including 3 colloquium units, with an overall GPA of 3.2 .
REQUIRED COURSE ..... Units
*ENGL 1AH Honors Reading and Composition .....  4

* An exception can be made if the student has successfully completed ENGL 1 A prior to entering the Honors program.
ELECTIVE COURSES: Select 12 Units
ANTHRO 2H Honors Cultural Anthropology .....  3
ART 5H or 6H Honors Art History .....  3
BA 10H Honors Introduction to Business .....  3
BIOL 1H Honors Principles of Biology .....  4
ECON 1AH Honors Macroeconomics. .....  3
ENGL 1BH Honors Introduction to Literature .....  3
ENGL 3H Honors Critical Reading \& Writing .....  3
HIST 1H or 2H Honors Western Civilization. .....  3
HUMAN 10H Honors Classical Humanities .....  3
HUMAN 11H Honors Modern Humanities. .....  3
PHIL 1AH Honors Theories of Knowledge and Reality. .....  3
PSY 2H Honors General Psychology. .....  3
COLLOQUIA: Select 2 Units
HONORS 1A Honors Science Colloquium .....  1
HONORS 1B Honors Humanities Colloquium .....  1
HONORS 1C Honors Humanities Colloquium .....  1
HONORS 1D Honors Business \& Economics Colloquium. .....  1
HONORS 1E Honors Social Science Colloquium .....  1
HONORS 1F Honors Phi Theta Kappa Colloquium .....  .1
HUMAN SERVICES
ALCOHOLISM AND DRUG ABUSE COUNSELING

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 field.

This program is accredited by the California Association for Alcohol/ Drug Educators (CAADE).

The program offers course work leading to a certificate, a certificate of achievement, and an AS degree in Alcoholism and Drug Abuse Counseling.
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 Abuse Counseling:
Professional and Personal Growth ..... 2
HS 19B Work Experience (Coop), Occup ..... 6
HS 20 Introduction to Social Welfare. ..... 3
HS 24 Fund of Interviewing and Counseling ..... 3
HS 40 Alcohol and Drug Abuse Counseling: Law and Ethics, Prevention, Education, and Outreach and Referral3
HS 42 Introduction to Alcohol and Drug Counseling ..... 3
HS 43Alcohol and Drug Abuse Counseling:Case Management 3
HS 44 Drug Use: Physical and Psychological Effects ..... 3
Total 29
COURSE OPTIONS: Select 7 UnitsUnits
AFRAM 1 African-American Culture, or
AMIND 34 American Indian in Contemporary Society, or
CLS/SOC 14Sociology of the Mexican AmericanCommunity 3
CHDEV 5 Parent Education .....  3
CHDEV/PSY 12 Child Abuse .....  3
HS/WSTS 25 Assertiveness Training ..... 2
SOC 2 American Minority Groups. .....  3
SOC/WSTS 5 Sociology of Rape .....  3
SOC/WSTS 7 Domestic Violence: Abuse Within the Family. .....  3
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
SOC 1B Global Social Problems ..... 3
SOC 32 Courtship, Marriage, and Divorce: Family and Interpersonal Relationships ..... 3
WSTS 10 Changing Roles of Women ..... 3
Eligibility for ENGL 125 and 126 or ESL 67 and 68 recommended.Notes: 1. An AS degree will be awarded to any Alcohol and Drug Abuse Coun-seling Certificate candidate who successfully completes a total of 60units. The 60 units must include associate degree requirements and33 units of course work in the major as listed above.
2. Associate degree requirements are listed on page 35. General Education requirements for transfer certification are on page 43.

## CERTIFICATE

This certificate is a recognition that the student has completed two entrancelevel courses in the area of Alcoholism Counseling.

| HS 42 | Intro to Alcohol and Drug Counseling ........................................ 3 |
| :--- | :--- |
| HS 43 | Alcohol and Drug Abuse........................ |
|  |  |

## 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 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 CERTIFICATE OF ACHIEVEMENT REQUIRED CORE COURSES

 UnitsBT 106 Computer Keyboarding........................................ 1.5
CIT 12 Computer Literacy............................................. 3
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 Interviewing/Counseling............ 3
HS $30 \quad$ Group and Community Social Services.................. 3
Total 19.5
COURSE OPTIONS: Select 12 Units Units
AFRAM 1 African-American Culture..................................... 3
AFRAM 2 Cultural Adaptation of the African-American ........ 3
AMIND 32 American Indian History...................................... 3
AMIND 34 The American Indian in Contemporary Society..... 3
AMST 10 American Pluralism............................................ 3
ANTHRO 2 Cultural Anthropology ......................................... 3
ASAMER 15 Intro to Asian-Americans ...................................... 3
ASL 1 Beginning American Sign Language .................... 4
BT 14/CIT 17 Windows ............................................................ 2
CHDEV 5 Parent Education .............................................. 3
CHDEV $30 \quad$ Child, Family and Community, or
SOC 31 Child in Society3

CHDEV 38 Lifespan Development.......................................... 3
CHDEV 39 Child Development.............................................. 3
CLS 11 Introduction to Chicano-Latino Studies................. 3
CLS/SOC 14 Sociology of the Mexican American Community .. 3
CLS $30 \quad$ The Mexican American Family -
Social and Psychological Perspectives 3

| FN 35 | Nutrition and Health, or |
| :---: | :---: |
| FN/WSTS 43 | Women's Nutrition .....................................2-3 |
| HMONG 1 | Beginning Hmong.......................................... 4 |
| HS/WSTS 25 | Assertiveness Training ...................................... 2 |
| HS 44 | Physical and Psychological Effects...................... 3 |
| SOC 1A/160 | Introduction to Sociology ................................. 3 |
| SOC 2 | American Minority Groups................................ 3 |
| SOC/WSTS 5 | Sociology of Rape........................................... 3 |
| SOC/WSTS 7 | Domestic Violence: Abuse Within the Family ........ 3 |
| SOC 32 | Courtship, Marriage and Divorce........................ 3 |
| SPAN 1 | Beginning Spanish........................................... 4 |
| SPEECH 1 | Intro to Public Speaking.................................. 3 |
| WSTS 10 | Changing Roles of Women ................................ 3 |
| Note: An associate tion of 60 education | in science degree will be awarded on the successful comple its. See page 35 for associate degree requirements. General uirements for transfer certification are on page 43. |

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

+ HUMAN 11/11H Modern Humanities ........................................ 3
+ Literature Course: ENGL 1B; 44A, 44B;
45; 46A, 46B; 48A, 48B; CLS 21; TA 31, $32 \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$
$\begin{array}{ll}\text { HIST } 1 & \text { Western Civilization to 1648, or } \\ \text { HIST } 2 & \text { Western Civilization Since 1648........................... } 3\end{array}$
+Foreign Language................................................................... 4
MATH Elective ......................................................................... 3
Physical Education .......................................................................... 1
Total 17

POLSCI 2 American Government .....  3
ANTHRO 2 Cultural Anthropology, orAFRAM 1CLS 11African-American Culture, orAMIND 31American Indian Culture 3
HIST 11 ..... HIST 12
History of the United States to 1877, or
History of the United States Since 1877 ..... $\ldots$
Physical Education ..... 1
Total 16-17
Second Semester ..... Units
+ENGL 42 Classic Myths .....  3
+ PHIL 1A Theories of Knowledge and Reality, orPHIL 1B Social \& Political Philosophy, orPHIL 1C Ethics ........................................................... 3
SPEECH 1 Intro to Public Speaking, orSPEECH 4Persuasion 3
PSY 2 General Psychology. .....  3
GEOG 2 Cultural Geography, orWorld Geography, orGEOG 4A
World Geography .....  3
GEOG 4B
Contemporary Health Issues .....  3
HLTH 1Total 18


## 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 Semester Units
AT 11 Basic Electricity .................................................... 3
DRAFT 12 Board Draft Practices .......................................... 3
Total 6
SECOND YEAR
First Semester Units
AUTOT 9 Auto Essentials.
... 3
Total 3
Second Semester Units
AT $10 \quad$ Technical Computer Applications .....  2
AT $40 \quad$ 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 35.
INDUSTRIAL TECHNOLOGY
CONSTRUCTION OPTION - MAJOR \#8240
associate in science degree
FIRST YEAR
First Semester ..... Units
ENGL 1A Reading and Composition ..... 4
PHYS 2A General Physics .....  4
MATH 5A Math Analysis I. .....  5
ARCH 12 Arch Practice ..... 3
Physical Education .....  1
Total 17
Second Semester ..... Units
SPEECH 1 Intro to Public Speaking, or
SPEECH 2 Interpersonal Communication ..... 3
AT 11 Basic Electricity ..... 3
ENGR 2 Graphics. .....  4
ENGR 1A Elementary Plane Surveying ..... 4
BIOL, CHEM or GEOL ..... 4
Total 18
SECOND YEARFirst SemesterUnits
ENGL $1 B$ Study of Literature, or
PHIL 1A Theories of Knowledge and Reality ..... 3
POLSCI 2 American Government. ..... 3
ECON 1A Intro to Macroeconomics ..... 3
BIOL, CHEM or PHYS 2B ..... 3-4
Physical Education ..... 1
AT $10 \quad$ 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 1877 , or
HIST 12 Hist of the U.S. Since 1877 ..... 3
ECON 1B Intro to Microeconomics. ..... 3
Fine Arts Elective .....  3
ARCH 21 Materials of Construction. .....  3
Total 16

Recommended Electives: AT 21; CONS 19, 51, 53; ARCH 10, 23, 24, 30, 33, 42.
Note: Associate degree requirements are listed on page 35.
MANUFACTURING OPTION - MAJOR \#8260
ASSOCIATE IN SCIENCE DEGREE
FIRST YEARFirst SemesterUnits
ENGL 1A Reading and Composition .....  4
CHEM 3A Intro General Chemistry, or
PHYS 2A General Physics .....  4
MATH 5A Math Analysis I .....  5
DRAFT 12 Board Drafting Practices .....  3
Physical Education .....  1
Total 17
Second Semester ..... Units
SPEECH 1 Intro to Public Speaking, or SPEECH 2 Interpersonal Communication .....  .3
AT 11 Basic Electricity .....  3
BIOL or GEOL ..... 4
ENGR 11 Manufacturing Processes .....  3
Physical Education .....  1
Total
SECOND YEARFirst SemesterUnits
ENGL 1BPHIL 1A Theories of Knowledge and Reality. .3
POLSCI 2 American Government .....  3
ECON 1A Intro to Macroeconomics .....  3
WELD 1 Exploring Welding/Metals . .....  3
CHEM 3A Intro General Chemistry, or
PHYS 2B General Physics .....  4
Physical Education .....  1
Total 17
Second Semester ..... Units
HIST 11 ..... HIST 12
Hist of the U.S. Since 1877 .....  3
ECON 1B Intro to Microeconomics .....  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 35.

## INFORMATION SYSTEMS - <br> SEE COMPUTER INFORMATION TECHNOLOGY

LIBERAL ARTS - MAJOR \#5100

## 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 35 .
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 36),
B. those courses listed for meeting the general education requirements for California State University Transfer Certification (page 43).
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.

## LIBERAL ARTS WITH AN EMPHASIS IN AMERICAN SIGN LANGUAGE ++

This program is designed to acquaint students with ASL and with an understanding of the culture and history of the people who use it.
This program will provide students with an understanding of the cultures and history of the people who use American Sign Language. It will also encourage them to appreciate the complexities of the multicultural society in which they live. Students will acquire the necessary sign language skills to succeed in everyday life experiences, vocational programs, and university transfer courses.

## List of classes recommended (min. of 18 units)

Courses taken at Fresno City College can be transferred to other colleges and universities.

Currently, Fresno City College has a transfer agreement with University of California Santa Cruz, Berkeley, Riverside and Davis. In addition, University of California at Santa Barbara and San Diego and Fresno State University accept Fresno City College students who comply with transfer requirements.

## ASSOCIATE IN ARTS DEGREE

18 units from the following: Units
ASL 2 High-Beginning American Sign Language............ 4
ASL 3 Intermediate American Sign Language ................. 4
ASL 4 High-Intermediate American Sign Language.

Deaf Culture
.. 3

ASL 5
ASL 6
ASL 7
ASL 8
Structure of American Sign Language .................. 3
Deaf History .. 3
American Sign Language/Literature ..................... 3
Total: 18

## LIBERAL ARTS DEGREE WITH AN EMPHASIS IN ANTHROPOLOGY/CRIMINOLOGY ++

This program is designed to provide students with a foundation in the social science disciplines related to forensic investigation. The program offers students an introduction to the intersection between the study of humans and their physical remains and the legal contexts of such analyses.
42 units of general education and
18 units from the following:

## ASSOCIATE IN ARTS DEGREE

Units
ANTHRO 1 Biological Anthropology................................... 3
And two from the following:
ANTHRO 2 Cultural Anthropology..................................... 3
ANTHRO 4 Introduction to Archaeology:
Methods and Theory ... 3
ANTHRO 5 Analytical Methods in Archaeology.................... 4
Total: 9-10
CRIM 1 Introduction to Criminology............................ 3
CRIM 8 Criminal Investigation.................................... 3
CRIM 9 Crime Scene Forensic Evidence......................... 3
Total: 9

## LIBERAL ARTS DEGREE WITH AN EMPHASIS IN ANTHROPOLOGY/ECONOMICS/GEOGRAPHY ++

This program is designed to acquaint students with the diversity of human culture, the environments in which cultures exist, the patterns of resource use that they practice, and the effects of modern economic practices and globalization on the peoples of the world.

## 42 units of general education and <br> 18 units with 6 units from each discipline: <br> ASSOCIATE IN ARTS DEGREE

Units
ANTHRO 1 Biological Anthropology ...................................... 3
ANTHRO 2 Cultural Anthropology ......................................... 3
ANTHRO 2H Honors Cultural Anthropology.............................. 3
ANTHRO 3 Introduction to Archaeology and Prehistory .......... 3
ANTHRO 13 Anthropology of Magic, Witchcraft, and Religion 3

ANTHRO 20

Native Peoples of California.
... 3

Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

| ANTHRO/CLS 28 | Ancient Mexico: An Intro to <br> Meso-American Civilizations \& Cultures............ 3 |
| :--- | :--- |
| ECON 1A | Introduction to Macroeconomics ..................... 3 |

## LIBERAL ARTS DEGREE WITH AN EMPHASIS IN ASIAN LANGUAGES ++

This program is designed to acquaint students with Asian Languages and with an understanding of the culture and history of the people who speak it. The study of foreign languages encourages students to examine assumptions they have uncritically accepted before their college experience.

This program will provide students with an understanding of the cultures and history of the people who speak the languages studied. It will also encourage them to appreciate the complexities of the multicultural society in which they live. Students will acquire the necessary language skills to succeed in everyday life experiences, vocational programs, and university transfer courses.
List of classes recommended (min. of 18 units)
Courses taken at Fresno City College can be transferred to other colleges and universities. Currently, Fresno City College has a transfer agreement with University of California Santa Cruz, Berkeley, Riverside and Davis. In addition, University of California at Santa Barbara and San Diego and Fresno State University accept Fresno City College students who comply with transfer requirements.
16 units from the following courses (at least two different languages):
ASSOCIATE IN ARTS DEGREE
Units
ARMEN 2 High-Beginning Armenian.................................. 4
ARMEN 3 Intermediate Armenian........................................ 4
CHIN 2 High-Beginning Chinese...................................... 4
CHIN 3 Intermediate Chinese........................................... 4
CHIN 4 High-Intermediate Chinese................................... 4
CHIN 5 Chinese Short Stories and Culture......................... 3
HMONG 2 High-Beginning Hmong....................................... 4
JAPAN 2 High-Beginning Japanese ..................................... 4
In addition, 3 units from the following courses:
ASAMER 1 Indo-Chinese Americans....................................... 3
ASAMER 10 Hmong Culture ................................................... 3
ASAMER 15 Introduction to Asian-Americans........................... 3
ASAMER 20 Asian-American Literature .................................... 3
Total: 19

## LIBERAL ARTS DEGREE WITH AN EMPHASIS IN CULTURAL STUDIES ++

This program is designed to acquaint students with the diversity of cultures, particularly within American society. The program offers a broad foundation for the study of cultures as well as classes specific to various ethnic cultures within the United States.
42 units of general education and 18 units from any of the following (but no more than 6 units from each discipline) ASSOCIATE IN ARTS DEGREE

| AFRAM 1 | African-American Culture..................................... 3 |
| :--- | :--- |
| AFRAM 2 | Cultural Adaptation of the African-American ........ 3 |
| AFRAM 4 | African Civilization ................................................. 3 |
| AFRAM 5 | The African in the New World............................... 3 |
| AFRAM 6 | African Cultures and Languages............................. 3 |
| AFRAM 41 | The African-American Woman ................................ 3 |

ASAMER 1 Indo-Chinese Americans .....  3
ASAMER 10 Hmong Culture .....  3
ASAMER 15 Introduction to Asian-Americans. .....  3
ASAMER 25 Asian American Social Issues. .....  3
ASAMER 30 Asian-American Women .....  3
AMST 10 American Pluralism: A Search for Common Ground in a Multicultural Society .....  3 3 3
Introduction to Chicano-Latino Studies. .....  3
Mexican American History. .....  3
Politics and the Chicano-Latino Community .....  3
Sociology of the Mexican American Community .....  3
La Chicana and Latina ..... 3
Ancient Mexico: An Introduction to
Meso-American Civilizations and Cultures
History of Mexico, Colonial to Contemporary Period .....  3
Mexican American Family: Social \& Psychological Perspectives .....  3CHDEV 15Diversity Issues in Early Care andEducation Programs.

CLS 11
CLS 12
GEOG 2 Cultural Geography .....  3
GEOG 4A World Geography. .....  3
GEOG 4B World Geography. ..... 3
GEOG 20 Geography in California .....  3
HIST 29History of Mexico, Colonial toContemporary Period
POLSCI 24 International Relations. .....  3
SOC 1B Global Social Problems .....  3
SOC 2 American Minority Groups. ..... 3
SOC 14 Sociology of the Mexican AmericanCommunity.
WSTS 10 Changing Roles of Women .....  3
WSTS 24 La Chicana and Latina ..... 3
WSTS 30 Asian-American Women. .....  3
WSTS 41 The African-American Woman ..... 3
LIBERAL ARTS DEGREE WITH AN EMPHASIS IN FOREIGN LANGUAGES ++3 3

This program is designed to acquaint students with foreign languages and with an understanding of the culture and history of the people who speak them. The study of foreign languages encourages students to examine assumptions they have uncritically accepted before their college experience. Students with substantial foreign language fluency who combine their language skills with a solid foundation in liberal education will find fulfilling occupations.

This program will provide students with an understanding of the cultures and history of the people who speak the languages studied. It will also encourage them to appreciate the complexities of the multicultural society in which they live. Students will acquire the necessary language skills to succeed in everyday life experiences, vocational programs, and university transfer courses.

List of classes recommended (min. of 18 units)
Courses taken at Fresno City College can be transferred to other colleges and universities.

Currently, Fresno City College has a transfer agreement with University of California Santa Cruz, Berkeley, Riverside and Davis. In addition, University of California at Santa Barbara and San Diego and Fresno State University accept Fresno City College students who comply with transfer requirements.

Minimum of 18 units in at least two foreign languages.

## Choose from the following: <br> ASSOCIATE IN ARTS DEGREE

Units
ARMEN 2 High-Beginning Armenian ................................... 4
ARMEN 3 Intermediate Armenian......................................... 4
CHIN 2 High-Beginning Chinese....................................... 4
CHIN 3 Intermediate Chinese ........................................... 4
CHIN 4 High-Intermediate Chinese................................... 4
CHIN 5 Chinese Short Stories and Culture......................... 3
FRENCH 2 High-Beginning French ........................................ 4

FRENCH 3
FRENCH 4
GERMAN
GERMAN
GERMAN
HMONG 2

SPAN 2
SPAN 3
SPAN 3NS
SPAN 4
SPAN 4NS
SPAN 5
SPAN 6
SPAN 7
SPAN 8

JAPAN 2
High-Beginning Japanese . .....  4
Intermediate French .....  4
High-Intermediate French .....  4
High-Beginning German. .....  4
Intermediate German .....  4
High-Intermediate German .....  4
High-Beginning Hmong. .....  4
High-Beginning Spanish .....  4
Intermediate Spanish or
Spanish for Spanish Speakers. 4
High-Intermediate Spanish or
Spanish for Spanish Speakers. .....  4
The Short Story: Mexico, Spain, and the U.S .....  3
The Short Story: Latin America. .....  3
Advanced Spanish: Composition and Grammar... .....  3
Advanced Spanish Conversation. .....  3

## LIBERAL ARTS DEGREE WITH AN EMPHASIS IN HISTORY/POLITICAL SCIENCE ++

This program is designed to acquaint students with the methodologies of history and political science and to increase their awareness of the foundations of social, cultural, and political aspects of modern society.
42 units of general education and

## 18 units with 9 units from each discipline:

ASSOCIATE OF ARTS DEGREE
Units
HIST 1 Western Civilization to 1648 .....  3
HIST 1H Honors Western Civilization to 1648 .....  3
HIST 2 Western Civilization Since 1648. .....  3
HIST 2H Honors Western Civilization Since 1648. .....  3
HIST 3 History of Ancient Rome .....  3
HIST 11
HIST 12
HIST 15
HIST 17
History of the United States to 1877 .....  3
History of the United States Since 1877 .....  3History of the British Isles. 3
HIST 18 History of Ancient Greece .....  3History of Islam. 3
HIST 21 .....  3
HIST 22 History of American Women .....  3
HIST/CLS 29 (1)
HIST 30
HIST 34
POLSCI 1
History of Mexico, Colonial to
Contemporary Period. .....  3
POLSCI 2California History. 3
History of American Civil Rights Movement 1954-1969. .....  3
Modern Politics .....  3
American Government. .....  3
POLSCI 5 Comparative Government. ..... 3
POLSCI 13 Legal and Judicial Reasoning. ..... 3
POLSCI 24 International Relations ..... 3
POLSCI 25 Model United Nations. ..... 3
*POLSCI 110 American Institutions ..... 3
*POLSCI 174 International Relations. ..... 3
*Non-transferable courses
LIBERAL ARTS DEGREE WITH EMPHASIS IN PHI- LOSOPHY/HUMANITIES +

A major in Philosophy/Humanities is designed for students seeking an integrated Liberal Arts education, and will aide in the development of critical thinking and critical reasoning skills. The courses offered will fulfill requirements towards the AA degree and for GE transfer certification for the state university system

The purpose of the Philosophy/Humanities major is to offer a course of study for students interested in an interdisciplinary education. In a structured environment, students will learn to apply techniques of critical thinking and critical reasoning to a broad social, cultural context. The program will enhance students' ability to read and understand complex material, and will improve communication skills.

[^10]
## LIBERAL ARTS DEGREE WITH AN EMPHASIS IN ROMANCE LANGUAGES ++

This program is designed to acquaint students with the Romance languages and with an understanding of the culture and history of the people who speak them. The study of foreign languages encourages students to examine assumptions they have uncritically accepted before their college experience. Students will have a number of rich opportunities to explore the languages, literatures, and cultures of the Spanish, Portuguese, and French-speaking worlds.

This program will provide students with an understanding of the cultures and history of the people who speak the languages studied. It will also encourage them to appreciate the complexities of the multicultural society in which they live. This emphasis will assure fluency in at least two Romance languages, as well as knowledge of the cultures they represent. Students will acquire the necessary language skills to succeed in everyday life experiences, vocational programs, and university transfer courses.

## List of classes recommended (min. of 18 units)

Courses taken at Fresno City College can be transferred to other colleges and universities. Currently, Fresno City College has a transfer agreement with University of California Santa Cruz, Berkeley, Riverside and Davis. In addition, University of California at Santa Barbara and San Diego and Fresno State University accept Fresno City College students who comply with transfer requirements.
Choose from the following courses (at least two different languages) for a total of 20 units:

## ASSOCIATE IN ARTS DEGREE

|  | Units |
| :---: | :---: |
| FRENCH 2 | High-Beginning French .................................... 4 |
| FRENCH 3 | Intermediate French ........................................ 4 |
| FRENCH 4 | High-Intermediate French................................ 4 |
| SPAN 2 | High-Beginning Spanish .................................. 4 |
| SPAN 3 | Intermediate Spanish or |
| SPAN 3NS | Spanish for Spanish Speakers............................ 4 |
| SPAN 4 | High-Intermediate Spanish or |
| SPAN 4NS | Spanish for Spanish Speakers ........................ 4 |

## LIBERAL ARTS INTERDISCIPLINARY SCIENCE EMPHASIS ++

The degree program is meant for students who need a broad knowledge of science, math and engineering in the context of a degree that will assist them to function as good citizens. It will be specifically useful to persons who are planning to take up jobs in the following sectors: public policy, media \& journalism.

[^11]|  | Units |
| :---: | :---: |
| BIOL 1 | Principles of Biology ........................................ 4 |
| BIOL 1H | Honors Principles of Biology............................. 4 |
| BIOL 3 | Introduction to Life Science............................... 4 |
| BIOL 4 | Principles of Zoology...................................... 5 |
| BIOL 5 | Human Biology .............................................. 4 |
| BIOL 6 | Principles of Botany ........................................ 5 |
| BIOL 7 | Field Biology................................................... 4 |
| BIOL 8A | Biotechnology 1............................................. 4 |
| BIOL 8B | Biotechnology 2.............................................. 4 |
| BIOL 8C | Biotechnology 3 . |
| BIOL 9 | Introduction to Biology................................... 3 |
| BIOL 20 | Human Anatomy............................................ 4 |
| BIOL 22 | Human Physiology......................................... 5 |
| BIOL 24 | Human Anatomy and Physiology ....................... 5 |
| BIOL 31 | Microbiology.. |
| BIOL 46 | Elementary Horticulture .................................. 4 |
| CHEM 1A | General Chemistry.......................................... 5 |
| CHEM 1B | General Chemistry \& Qualitative Analysis............. 5 |
| CHEM 3A | Introductory General Chemistry ......................... 4 |
| CHEM 3B | Introductory Organic \& Biological Chemistry ...... 3 |
| CHEM 8A | Elementary Organic Chemistry ......................... 3 |
| CHEM 28A | Organic Chemistry ......................................... 3 |
| GEOL 1 | Physical Geology ............................................ 4 |
| GEOL 2 | Historical Geology .......................................... 3 |
| GEOL 9 | Introduction to Earth Science............................ 3 |
| ENGR 1A | Elementary Plane Surveying 1 .......................... 4 |
| ENGR 1B | Elementary Plane Surveying 2 .......................... 4 |
| ENGR 2 | Engineering Graphics ..................................... 4 |
| ENGR 4 | Engineering Materials...................................... 3 |
| ENGR 6 | Circuits with Laboratory................................... 4 |
| ENGR 8 | Statics ........................................................... 3 |
| ENGR 10 | Introduction to Engineering............................. 2 |
| ENGR 11 | Manufacturing Processes ................................. 3 |
| MATH 4A | Trigonometry................................................ 4 |
| MATH 4B | Pre-Calculus.................................................. 4 |
| MATH 5A | Mathematical Analysis I.................................. 5 |
| MATH 5B | Mathematical Analysis II .................................. 4 |
| MATH 6 | Mathematical Analysis III................................ 4 |
| MATH 7 | Introduction to Differential Equations................. 4 |
| MATH 10A | Structure \& Concepts in Mathematics I ............... 3 |
| MATH 10B | Structure \& Concepts in Mathematics II.............. 3 |
| MATH 11 | Elementary Statistics........................................ 4 |
| MATH 21 | Finite Math .................................................. 3 |
| MATH 26 | Elementary Linear Algebra ............................... 3 |
| MATH 42 | Statistics for the Behavioral Sciences.................... 4 |
| MATH 45 | Contemporary Math ......................................... 3 |

Choose classes worth 20 units from the following, with no more than 2 classes from any subject area:

BIOL 1 Principles of Biology ............................................. 4
BIOL 1H Honors Principles of Biology................................ 4
BIOL 3 Introduction to Life Science................................. 4
BIOL 4 Principles of Zoology........................................... 5
BIOL 5 Human Biology .................................................. 4
BIOL 6 Principles of Botany ............................................ 5
BIOL 7 Field Biology...................................................... 4
BIOL 8A Biotechnology 1................................................. 4
BIOL 8B Biotechnology 2.................................................. 4
BIOL 8C Biotechnology 3........................................................ 4
Introduction to Biology........................................ 3
Human Anatomy................................................ 4
BIOL 22 Human Physiology............................................. 5
BIOL 24 Human Anatomy and Physiology......................... 5
BIOL 31 Microbiology...................................................... 5
BIOL 46 Elementary Horticulture ...................................... 4
CHEM 1A General Chemistry................................................ 5
CHEM 1B General Chemistry \& Qualitative Analysis.............. 5
CHEM 3A Introductory General Chemistry ............................ 4
CHEM 3B Introductory Organic \& Biological Chemistry ....... 3
Elementary Organic Chemistry ............................ 3
CHEM 28A Organic Chemistry ............................................. 3
GEOL 1 Physical Geology ................................................ 4
GEOL 2 Historical Geology ............................................... 3
GEOL 9 Introduction to Earth Science................................ 3
ENGR 1A Elementary Plane Surveying 1 ............................... 4
ENGR 1B Elementary Plane Surveying 2 ............................. 4
ENGR 2 Engineering Graphics .......................................... 4
ENGR 4 Engineering Materials......................................... 3
ENGR 6 Circuits with Laboratory........................................... 4
ENGR 8 Statics ............................................................... 3
ENGR 10 Introduction to Engineering................................ 2
ENGR 11 Manufacturing Processes...................................... 3
MATH 4A Trigonometry..................................................... 4
MATH 4B Pre-Calculus........................................................ 4
MATH 5A Mathematical Analysis I....................................... 5
MATH 5B Mathematical Analysis II ....................................... 4
MATH 6 Mathematical Analysis III..................................... 4
MATH 7 Introduction to Differential Equations................... 4
MATH 10A Structure \& Concepts in Mathematics I ................. 3
MATH 10B Structure \& Concepts in Mathematics II............... 3
MATH 11 Elementary Statistics............................................ 4
MATH 21 Finite Math ......................................................... 3
MATH 26 Elementary Linear Algebra .................................. 3
MATH 42 Statistics for the Behavioral Sciences...................... 4
MATH 45 Contemporary Math............................................ 3

MATH 48A Pre-Calculus Workshop....................................... 1
MATH 48B Calculus Workshop I............................................ 1
MATH 48C

## LIBERAL ARTS DEGREE WITH AN EMPHASIS IN SOCIAL SCIENCES ++

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.

Outcomes: Upon completion of the AA with an Emphasis in Social Sciences students will:

## 42 units of general education and

18 units from any of the following courses
(but no more than 6 units in one discipline)
ASSOCIATE IN ARTS DEGREE

|  | Units |
| :---: | :---: |
| AFRAM 1 | African-American Culture................................. 3 |
| AFRAM 3 | African-American Art...................................... 3 |
| AMIND 31 | American Indian Culture.................................. 3 |
| AMIND 32 | American Indian History.................................. 3 |
| ANTHRO 2 | Cultural Anthropology ..................................... 3 |
| ANTHRO 2H | Honors Cultural Anthropology........................... 3 |
| ANTHRO 3 | Introduction to Archaeology and Prehistory ......... 3 |
| ANTHRO 13 | Anthropology of Magic, Witchcraft, and Religion.. 3 |
| ASAMER 1 | Indo-Chinese Americans.................................. 3 |
| ASAMER 15 | Introduction to Asian-Americans........................ 3 |
| AMST 10 | American Pluralism: A Search for Common <br> Ground in a Multicultural Society .. 3 $\qquad$ |
| CLS 11 | Introduction to Chicano-Latino Studies............... 3 |
| CLS 12 | Mexican American History............................... 3 |
| CHDEV 39 | Child Development......................................... 3 |
| ECON 1A | Introduction to Macroeconomics ....................... 3 |
| ECON 1AH | Honors Introduction to Macroeconomics............. 3 |
| ECON 1B | Introduction to Microeconomics ........................ 3 |
| ECON 1BH | Honors Introduction to Microeconomics .............. 3 |
| GEOG 2 | Cultural Geography........................................ 3 |
| GEOG 4A | World Geography........................................... 3 |
| GEOG 4B | World Geography............................................ 3 |
| HIST 1 | Western Civilization to 1648 ............................. 3 |
| HIST 1H | Honors Western Civilization to 1648 ................... 3 |
| HIST 2 | Western Civilization Since 1648......................... 3 |
| HIST 2H | Honors Western Civilization Since 1648............... 3 |
| HIST 15 | History of the British Isles ................................. 3 |
| HIST 17 | History of Islam............................................. 3 |
| HIST 18 | History of Ancient Greece ................................. 3 |
| HIST 21 | United States Civil War.................................... 3 |

[^12]HIST 22 History of American Women ..... 3
HIST/CLS 29History of Mexico, Colonial toContemporary Period3
HIST 30 California History ..... 3
HIST 34 History of American Civil RightsMovement 1954-1969.3
HS 20 Introduction to Social Welfare. .....  3
POLSCI 1 Modern Politics ..... 3
POLSCI 5 Comparative Government ..... 3
POLSCI 24 International Relations ..... 3
PSY 2 General Psychology. ..... 3
PSY 2H Honors General Psychology ..... 3
PSY 5 Social Psychology ..... 3
PSY 15 Psychology of Religion. ..... 3
PSY 25 Human Sexuality ..... 3
PSY 33 Personal and Social Adjustment .....  3
PSY 39 Child Development. ..... 3
SOC 1A Introduction to Sociology ..... 3
SOC 1B Global Social Problems ..... 3
SOC 2 American Minority Groups ..... 3
SOC/HS 10 Introduction to Aging Studies ..... 3
SOC/CLS 14 Sociology of the Mexican American Community .. 3 .....  3
SOC 31 The Child in Society: A Social ProblemsApproach3
SOC 32 Courtship, Marriage and Divorce: Family and Interpersonal Relationships ..... 3
WSTS 10 Changing Roles of Women ..... 3
LIBERAL ARTS DEGREE WITH AN EMPHASIS IN SOCIOLOGY ++

This program is designed to acquaint students with tools to understand the functioning of the society in which they live. The program offers students a broad and multicultural perspective on the world around them and also provides them with a solid foundation for further study in sociology.
42 units of general education
ASSOCIATE IN ARTS DEGREE
Units
SOC 1A (required) Introduction to Sociology ..................................... 3
And 15 units from the list below
MATH 11 Elementary Statistics or ........................................ 4
MATH/PSY 42 Statistics for the Behavioral Sciences..................... 4
SOC 1B Global Social Problems....................................... 3
SOC 2 American Minority Groups.................................... 3
SOC/WSTS 5 Sociology of Rape................................................ 3
SOC/WSTS 7 Domestic Violence: Abuse within the Family.......... 3
SOC/HS 10 Introduction to Aging Studies............................... 3
SOC/CLS 14 Sociology of the Mexican American Community .. 3Interpersonal Relationships 3
LIBERAL ARTS DEGREE WITH AN EMPHASIS IN SPANISH ++

This program is designed to acquaint students with the Spanish language and with an understanding of the culture and history of the people who speak it. The study of foreign languages encourages students to examine assumptions they have uncritically accepted before their college experience. Students with substantial foreign language fluency who combine their language skills with a solid foundation in liberal education will find fulfilling occupations.
This program will provide students with an understanding of the cultures and history of the people who speak the languages studied. It will also encourage them to appreciate the complexities of the multicultural society in which they live. Students will acquire the necessary language skills to succeed in everyday life experiences, vocational programs, and university transfer courses.

## List of classes recommended (minimum of 18 units)

Courses taken at Fresno City College can be transferred to other colleges and universities.

Currently, Fresno City College has a transfer agreement with University of California Santa Cruz, Berkeley, Riverside and Davis. In addition, University of California at Santa Barbara and San Diego and Fresno State University accept Fresno City College students who comply with transfer requirements.

## 12 units from the following courses:

ASSOCIATE IN ARTS DEGREE

## Units

## Non-native speakers

SPAN 2 High-Beginning Spanish ...................................... 4
SPAN 3 Intermediate Spanish.......................................... 4
SPAN 4 High-Intermediate Spanish .................................. 4
or

## Native speakers

SPAN 2 High-Beginning Spanish ..................................... 4
SPAN 3NS Spanish for Spanish Speakers............................... 4
SPAN 4NS Spanish for Spanish Speakers................................ 4
6 units from the following: Units
SPAN 5 The Short Story: Mexico, Spain, and the U.S. ........ 3
SPAN 6 The Short Story: Latin America.............................. 3
SPAN 7 Advanced Spanish: Composition and Grammar.... 3
SPAN 8 Advanced Spanish Conversation........................... 3
Total: 18

[^13]Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

## 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

Requires completion of the major ( 22 units) with a 2.0 or better GPA. Additionally, requires completion of the associate degree requirements found in the Fresno City College catalog. Students seeking an associate degree may apply for an evaluation at Admissions and Records 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

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.
REQUIRED COURSE WORK (22 Units) Units
LIBSKL 2 Information and Computer Literacy ...................... 3
LITEC 51 Introduction to Library Services ............................ 3
LITEC 52 Library Technical 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
LITEC 60
Library Technology Capstone or
LITEC 19 Work Experience (Coop), Occup .1-4
Note: Associate degree requirements are listed on page 35.

## LIFE SCIENCE DEGREE - MAJOR \#6080

This program is designed to provide students with foundational knowledge in biological principles and concepts. This two year associate degree program is intended for transfer students majoring in the biological sciences.
The Biological and Life Sciences Program at Fresno City College provides entry level instruction in the following: fulfillment of prerequisites for entry into allied health fields, fulfillment of prerequisites for students transferring into biological sciences and fulfillment of general education requirements for transfer to four-year institutions.

Specific biology courses to meet degree requirements (14 units total):
Recommended sequence is Biology $1,4,6$.

ASSOCIATE IN SCIENCE DEGREE

|  | Units |
| :---: | :---: |
| BIOL 1 | Principles of Biology ................................ 4 |
| BIOL 1H | Honors Principles of Biology.......................... 4 |
| BIOL 3 | Introduction to Life Science.. |
| BIOL 4 | Principles of Zoology................................. 5 |
| BIOL 5 | Human Biology. |
| BIOL 6 | Principles of Botany .................................... 5 |
| BIOL 7 | Field Biology... |
| BIOL 8A | Biotechnology 1. |
| BIOL 8B | Biotechnology 2. |
| BIoL 8 C | Biotechnology 3 . |
| BIOL 9 | Introduction to Biology.. |
| BIOL 20 | Human Anatomy... |
| BIOL 22 | Human Physiology... |
| BIOL 24 | Human Anatomy and Physiology..................... 5 |
| BIOL 31 | Microbiology............................................ 5 |
| BIOL 46 | Elementary Horticulture............................... 4 |
| Specific ments: | al Science courses to meet degree requiretotal) |

Units
ASTRONOMY
ASTR0 10 Basic Astronomy .................................................. 3

## CHEMISTRY

CHEM 1A General Chemistry............................................... 5
CHEM 1B General Chemistry and Qualitative Analysis .......... 5
CHEM 3A Introductory General Chemistry ............................ 4
CHEM 3B Introductory Organic \& Biological Chemistry ....... 3
CHEM 8A Elementary Organic Chemistry ............................. 3

## GEOLOGY

GEOL 1 Physical Geology ................................................ 4
GEOL 2 Historical Geology ............................................... 3
GEOL 4 Geology of California .......................................... 3
GEOL 5 Introduction to Oceanography ............................. 3
GEOGRAPHY
GEOG 1 Physical Geography............................................. 3
GEOG 7 Physical Geography: Earth's Surface...................... 4
GEOG 8 Physical Geography: Weather and Climate............ 4
PHYSICAL SCIENCE
PHYSC 7 Environmental Science........................................ 3

## PHYSICS

PHYS 2A General Physics 1 ................................................ 4
PHYS 2B General Physics $2 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ . ~ . ~ 4 ~ 4 ~$
PHYS 4A Physics for Scientists and Engineers...................... 4
PHYS 4B Physics for Scientists and Engineers...................... 4

| $\overline{M A N U F A C T U R I N G ~ T E C H N I C I A N ~-~ M A J O R ~ \# 8301 ~}$ | CERTIFICATE OF ACHIEVEMENT |  |
| :---: | :---: | :---: |
| This curriculum provides training in maintenance mechanic, electrical control systems, and principles of industrial refrigeration (ammonia) | BT 21 | Working Relationships.................................... 1.5 |
|  | BT 115* | Refresher Math ............................................... 3 |
| systems. | BT 131 | Applied Accounting ........................................ 4 |
| CERTIFICATE | CIT 12 | Computer Literacy ......................................... 3 |
| MMCTC 370 Maintenance Mechanic 370(Welding) ......... 300 Hours | MKTG 10 | Principles of Marketing..................................... 3 |
| MMCTC 371 Maintenance Mechanic 371 | MKTG 11 | Salesmanship ................................................... 3 |
| (Hydraulic, Pneumatic)............................. 300 Hours | MKTG 14 | Retailing...................................................... 3 |
| MMCTC 372 Maintenance Mechanic 372 (Electrical)....... 300 Hours | MKTG 12 | Advertising and Promotion................................. 3 |
| EST 50 Introduction to Electronics .........................2.5 Units | MKTG 19 | Occupational Work Experience ............................ 2 |
| EST 55A Digital Concepts ......................................... 3 Units |  | Total 27 |
| EST 58 Introduction to Programmable Logic <br> Controllers $\qquad$ 3 Units | *Requirements and units will be waived if knowledge and skill in the subject matter can be demonstrated. |  |
| EST 59 Instrumentation and Control ......................... 3 Units |  |  |
| AC 353 Principles of Industrial Refrigeration ............ 52 Hours | ADVERTISING - MAJOR \#2113 |  |
|  | CERTIFICATEBA 33MKTG 10 | Units |
| MARKETING - MAJOR \#2110 |  | Human Relations in Business........................... 3 |
|  |  | Principles of Marketing...................................... 3 |
| This curriculum is designed for students planning to enter the marketing fields of retailing, wholesaling general selling, and advertising. | MKTG 12 | Advertising..................................................... 3 |
| ASSOCIATE IN SCIENCE DEGREE |  |  |
| FIRST YEAR | CALL CENTER TELEMARKETING - MAJOR \#2115 |  |
| First Semester Units | After completion of this program, individuals will be prepared for the following career/jobs: telemarketers, telephone solicitors, customer service |  |
| MKTG 10 Principles of Marketing.................................... 3 |  |  |
| MKTG 11 Salesmanship ................................................ 3 |  |  |
| Associate Degree Requirements | representatives, sales associates, sales agents-service, debt collectors, billing clerks, insurance adjuster clerks, banking call center clerks, and any entrylevel customer service oriented business. |  |
| Total 16 |  |  |
| Second Semester | CERTIFICATE OF ACHIEVEMENT |  |
| BA 18 Business a | BA 8 | Business Protocol \& Etiquette............................ 3 |
| CIT 15 Computer Concepts |  |  |
| MKTG 12 | BA19 | Work Experience (Coop), Occup ......................... 1 |
| Associate Degree Requirements...................................................... 7 | BT 1 | Beginning Typing............................................ 4 |
| Total 17 |  |  |
| SECOND YEAR | BT 28 | Microsoft Word I......................................... 2 |
| First Semester Units | BT 122 | Typing Skillbuilding $\qquad$ |
| MKTG 14 Retailing ..................................................... 3 | BT 250 | Office Skills Lab.......................................... 1 |
| Associate Degree Requirements.................................................. 10 | BT 270 | Business Math \& Ten-Key .................................. 2 |
| Total 13 | BT 271 | Business Grammar Fundamentals ...................... 2 |
| Second Semester Units | CIT 31/BT 24 | Beginning Excel............................................. 1 |
| BA 33 Human Relations in Business............................ 3 | MKTG 251 | Introduction to Sales \& Marketing...................... 1 |
| DS 117 Business Mathematics..................................... 3 | MKTG 252 | Customer Service........................................... 1 |
| Associate Degree Requirements.................................................. 10 | MKTG 253 | Personal Development ...................................... 1 |
| Total 16 | MKTG 255 | Telemarketing .............................................. 1 |
| Recommended Electives: ACCTG 4A; BA 5, 10; MKTG 17, 19. (MKTG 19, 1st \& 2nd semester should be equivalent to 500 hours of work experience) | MKTG 256 | Call Center Telemarketing ............................... 1 |
|  |  | Total 25 |
| Note: Associate degree requirements are listed on page 35. |  |  |

## MANUFACTURING TECHNICIAN - MAJOR \#8301

This curriculum provides training in maintenance mechanic, electrical control systems, and principles of industrial refrigeration (ammonia) systems.

MMCTC 370 Maintenance Mechanic 370 (Welding) ......... 300 Hours

MMCTC 372 Maintenance Mechanic 372 (Electrical)....... 300 Hours
EST 50 Introduction to Electronics ............................2.5 Units
EST 55A Digital Concepts .................................................. 3 Units
EST 58 Introduction to Programmable Logic
Controllers ................................................... 3 Units
EST 59 Instrumentation and Control ............................ 3 Units

## MARKETING - MAJOR \#2110

This curriculum is designed for students planning to enter the marketing fields of retailing, wholesaling, general selling, and advertising.
ASSOCIATE IN SCIENCE DEGREE
FIRST YEAR
Units
MKTG 10 Principles of Marketing........................................ 3
MKTG 11 Salesmanship ..................................................... 3
Associate Degree Requirements........................................................ 10
Total 16
Units
BA 18 Business and the Legal Environment..................... 4
CIT 15 Computer Concepts ............................................. 3
MKTG 12 Advertising and Promotion.................................. 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
BA 33 Human Relations in Business.............................. 3
DS 117 Business Mathematics.......................................... 3
Associate Degree Requirements....................................................... 10
Total 16
Recommended Electives: ACCTG 4A; BA 5, 10; MKTG 17, 19. (MKTG 19, 1st \& 2nd semester, should be equivalent to 500 hours of work experience.)

Note: Associate degree requirements are listed on page 35.

CERTIFICATE OF ACHIEVEMENT
BT 20 Resume/Interview ............................................... 1.5
BT 21 Working Relationships........................................ 1.5
BT 115* Refresher Math..................................................... 3
B1 131 Applied Accounting ................................................ 4
Computer Literacy .............................................. 3
Principles of Marketing....................................... 3

Advertising and Promotion.................................. 3

Total 27
*Requirements and units will be waived if knowledge and skill in the subject matter can be demonstrated.

## CALL CENTER TELEMARKETING - MAJOR \#2115

After completion of this program, individuals will be prepared for the following career/jobs: telemarketers, telephone solicitors, customer service representatives, sales associates, sales agents-service, debt collectors, billing clerks, insurance adjuster clerks, banking call center clerks, and any entryevel customer service oriented business.
CERTIFICATE OF ACHIEVEMENT Units
BA 8 Business Protocol \& Etiquette................................ 3
BA 19 Work Experience (Coop), Occup .......................... 1
BT 1 Beginning Typing................................................ 4
Resume/Interview ................................................ 1.5
Working Relations................................................ 1.5
Microsoft Word I................................................... 2
Typing Skillbuilding ........................................... 1
Office Skills Lab.................................................. 1
Business Math \& Ten-Key ..................................... 2
Business Grammar Fundamentals........................ 2
Beginning Excel................................................... 1
Introduction to Sales \& Marketing ........................ 1
customer Service
Personal Development ........................................ 1

Call Center Telemarketing ................................... 1
Total 25

CUSTOMER RELATIONS SPECIALIST ASSOCIATE<br>OPTION - MAJOR \#2612

| After completion of this program, individuals will be prepared for the following career/jobs: customer service representative, sales associate, receptionist, and any entry-level customer service oriented business. |  |
| :---: | :---: |
| CERTIFIC | ACHIEVEMENT Units |
| ACCT 270 | Accounting Math Skills ..................................... 1 |
| BA 7 | Business Attitudes |
| BA 8 | Business Protocol and Etiquette ......................... 3 |
| BT 20 | Resume/Interview ............................................ 2 |
| BT 28 | Microsoft Word I. |
| BT 106 | Computer Keyboarding |
| BT 250 | Office Skills Lab. |
| BT 271 | Business Grammar Fundamentals...................... 2 |
| CIT 277 | Accelerated Excel |
| MKTG 19 | Work Experience (Coop), Occup ......................... 4 |
| MKTG 251 | Introduction to Sales \& Marketing.. |
| MKTG 252 | Customer Service............................................ 1 |
| MKTG 253 | Personal Development ..................................... 1 |
| MKTG 254 | Business Presentations ..................................... 1 |
| MKTG 255 | Telemarketing ................................................ 1 |
|  | Total 26 |



RETAILING - MAJOR \#2116


## MATHEMATICS - MAJOR \#6200

The math degree program will help prepare students for math and science related subjects they will study in four-year college or university programs.

Preparatory courses: Students needing prerequisite courses will take from the following as required:

| MATH 4A | Trigonometry |
| :--- | :--- |
| MATH 4B | Precalculus |
| MATH 101 | Elementary Algebra |


| MATH 102 | Plane Geometry |
| :--- | :--- |
| MATH 103 | Intermediate Algebra |

## ASSOCIATE IN SCIENCE DEGREE

$\qquad$
REQUIRED CORE COURSES Units
CSCI 40 Programming Concepts \& Methodology I .....  4
MATH 5A Mathematical Analysis I. .....  5
MATH 5B Mathematical Analysis II .....  4
MATH 6 Mathematical Analysis III. .....  4
Total ..... 17
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, orMATH 10BStructure/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 35.
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 260D or test score that would qualify the student to place out of or above Math 260D.
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.

## Background Check

Upon entry into the program, students may be required to obtain a background check.

## ASSOCIATE IN SCIENCE DEGREE <br> *FIRST YEAR

First Semester
Units
BT 20 Resume/Interview ............................................... 1.5
BT 21 Working Relationships........................................ 1.5
HIT 10 Medical Terminology ........................................... 3
**MA 1 Legal and Ethical Concepts................................... 2
Total 8
Second Semester Uuman Biology......................................................... 4
BIOL 5 .
CIT 15 Computer Concepts ............................................. 3
HLTH 2 First Aid and Safety............................................... 2
HS 24 Interviewing and Counseling................................ 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 Units
FN 40 Nutrition........................................................... 3
**MA 5 Diagnostic and Therapeutic Procedures................. 4
**MA 6B Advanced Training .............................................. 3
**MA $19 \quad$ Work Experience (Coop), Occup ........................1-4
Total 11-14

* Requires additional general education units for two-year Associate in Science degree. All courses must be completed with a "C" grade or better.
** Upon completion, the student will be eligible to take the California Medical Assistant State Certification Exam.

Note: BIOL 24 or BIOL 20 and 22 may be substituted for BIOL 5.

## 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.

Music majors must select one of the following areas of specialization: instrumental, vocal, guitar, piano, or commercial music. Instrumental, vocal, guitar, and piano majors must take Music 1A, 1B, $2 \mathrm{~A}, 2 \mathrm{~B}, 7 \mathrm{~A}, 7 \mathrm{~B}, 9,13$, and 18 . These 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):

For the INT/ADV class requirement:
Brass players take Music 42A or 73A or 74A
Woodwind players take Music 42B or 73B or 74B
String players take Music 42 C or 73 C or 74 C
Percussionists take Music 42D or 73D or 74D
For the Large Ensemble requirement, all instrumental majors above select from the following:
Music $40 \quad$ Concert Band
Music 46 Symphony Orchestra
Music 68 Symphonic Band
Music 69 Wind Band
Music 75 Community Orchestra
Music 76 College Philharmonic Orchestra

## Vocal majors (Major \#5820):

For the INT/ADV class requirement, take Music 26
For the Large Ensemble requirement, all vocal majors select from the following:

| Music 30 | College Choir |
| :--- | :--- |
| Music 39 | Opera and Musical Theatre Workshop |
| Music 60 | Symphonic Choir |
| Music 61 | A Cappella Choir |
| Music 66 | Opera and Performance Practices |
| Music 67 | Musical Theatre Performance Practices |

Guitar majors (Major \#5830) and Piano majors
(Major \#5840):
For the INT/ADV class requirement:
Guitar majors take Music 29
Piano majors take Music 22
For the Large Ensemble requirement, all guitar or piano majors select from the following:

| Music 30 | College Choir |
| :--- | :--- |
| Music 34 | Fresno Chorale |
| Music 40 | Concert Band |
| Music 41 | Jazz Ensemble |
| Music 47 | Jazz Combo |
| Music 48 | Latin Jazz |
| Music 53 | Latin Jazz Workshop |
| Music 60 | Symphonic Choir |
| Music 61 | A Cappella Choir |
| Music 68 | Symphonic Band |
| Music 69 | Wind Band |
| Music 70 | Studio Jazz Ensemble |
| Music 71 | Lab Jazz Ensemble |
| Music 72 | Jazz Composer's Orchestra |
| Music 77 | Studio Jazz Combo |
| Music 78 | Lab Jazz Combo |


| Music 90 | Jazz Composer's Workshop |  |
| :---: | :---: | :---: |
| Music 91 | Jazz Composer's Ensemble |  |
| Music 92 | Vocal Jazz Ensemble |  |
| ASSOCIATE IN ARTS DEGREE |  |  |
| SEQUENCE OF COURSES |  |  |
| FIRST YEAR |  |  |
| Fall Semester |  | Units |
| MUS 1A | Music Theory I ............................... |  |
| MUS 7A | Ear Training.. | .... 1 |
| INT/ADV class | ...................................................... | ...... 2 |
| Large ensemble |  | 2 |
|  | Total | 8 |
| Spring Semester |  | Units |
| MUS 1B | Music Theory II...................................... | ....... 3 |
| MUS 7A (if needed) or |  |  |
| MUS 7B | Ear Training | ... 1 |
| INT/ADV class ........................................................... 2 |  |  |
| Large Ensemble |  | . 2 |
|  | Total | 8 |
| SECOND YEAR |  |  |
| Fall Semester |  | Units |
| MUS 2A | Music Theory III. | ... 3 |
| MUS 7A or 7B | Ear Training. | . 1 |
| MUS 13 | History of Music. | ... 3 |
| INT/ADV class | ............................................... | ...... 2 |
| Large ensemble |  | 2 |
|  | Total | 11 |
| Spring Semester |  | Units |
| MUS 2B | Music Theory IV.................................. | $\ldots . . . . . .3$ |
| MUS 7B | Ear Training (if needed) ...... | ..... 1 |
| MUS 9 | Composition........... | .... 2 |
| MUS 18 | Conducting .................................... | ......... 2 |
| INT/ADV class | ....... | ...... 2 |
| Large ensemble | ................... | ......... 2 |
|  | Total | 12 |

## 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 necessary for employment in the music industry.

```
ASSOCIATE IN SCIENCE DEGREE AND
CERTIFICATE OF ACHIEVEMENT
FIRST YEAR
Fall Semester
```

MUS 3 or
MUS 1A
MUS 17

```
Music Fundamentals or Music Theory I 3
```

| *MUS 20 | Beginning Piano Level I... | 2 |
| :---: | :---: | :---: |
|  | Total | 8 |
| Spring Semester |  | Units |
| MUS 7A | Ear Training Level I......................... | ..... 1 |
| ***MUS 24 | Elementary Voice Level I . | . 1 |
| **MUS 21 | Beginning Piano Level II .................. | ..... 2 |
| MUS 111 | The Music Business ........................... | ...... 3 |
|  | Total | 7 |
| SECOND YEAR |  |  |
| Fall Semester |  | Units |
| MUS 8 | Audio Engineering........................... | .. 3 |
| Large Ensemble | ................................................ | 2 |
| MUS electives | ........ | ....2-3 |
|  | Total | 7-8 |
| Spring Semester |  | Units |
| MUS 5 | MIDI Music Production.............. | ...... 2 |
| MUS 112 | Introduction to Finale. | ....... 2 |
| Large Ensemble |  | 2 |
| MUS electives | ................................................ | .2-3 |
|  | Total | 8-9 |
| *MUS 21 or 22 may be substituted |  |  |
| **MUS 22 may be substituted |  |  |
| ***MUS 25 or 26 may be substituted |  |  |
| NOTE: Associate degree requirements are listed on page 35. General Education requirements for transfer certification are listed on page 43. |  |  |

For the Large Ensemble requirement, Commercial Music majors select from the following:

| Music 30 | College Choir |
| :--- | :--- |
| Music 34 | Fresno Chorale |
| Music 40 | Concert Band |
| Music 41 | Jazz Ensemble |
| Music 47 | Jazz Combo |
| Music 48 | Latin Jazz |
| Music 53 | Latin Jazz Workshop |
| Music 60 | Symphonic Choir |
| Music 61 | A Cappella Choir |
| Music 68 | Symphonic Band |
| Music 69 | Wind Band |
| Music 70 | Studio Jazz Ensemble |
| Music 71 | Lab Jazz Ensemble |
| Music 72 | Jazz Composer's Orchestra |
| Music 77 | Studio Jazz Combo |
| Music 78 | Lab Jazz Combo |
| Music 90 | Jazz Composer's Workshop |
| Music 91 | Jazz Composer's Ensemble |
| Music 92 | Vocal Jazz Ensemble |

For the Music Electives requirement, Commercial Music majors select from the following:

Music 1A, 1B, 2A, 2B, 3, 4, 6, 7B, 9, 10A, 10B, 12, 13, 16, 18, 22, 25, 26, $27,28,29,30,34,35,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}, 46,47,48,49$,
$57,58,59,60,63,64,68,69,70,71,72,73 \mathrm{~A}, 73 \mathrm{~B}, 73 \mathrm{C}, 73 \mathrm{D}, 74 \mathrm{~A}, 74 \mathrm{~B}$, $74 \mathrm{C}, 74 \mathrm{D}, 75,76,77,78,90,91$, or 9

## 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 bigh 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.

## Paradigm Program

The Paradigm Program is our contract education educational program; a collaborative agreement made with area hospitals for their qualified and approved employees to enter our program. The hospital pays Fresno City College for instruction and then provides clinical instruction to students who have met all the qualifications of our traditional students.

## 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 ExaminationRN, 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.

## Background Check

Upon entry into the program, students may be required to obtain a background check.

## 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 |
| Second Semeste | er Units |
| RN 5 | Perinatal Nursing........................................... 2.5 |
| RN 6 | Perinatal Nursing \& Adult Reproductive <br> Health Nursing Clinical $\qquad$ |
| 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 |
| RN3 | Intermediate Medical-Surgical Nursing.............. 2.5 |
| RN 4 | Intermediate Medical-Surgical Nursing <br> Clinical $\qquad$ 2.5 |
| RN 13 | Nursing of Infants \& Children........................... 2 |
| RN 14 | Nursing of Infants \& Children Clinical................ 2 |
|  | Total 9 |
| Second Semester |  |
| RN 7 | Advanced Medical-Surgical Nursing (A).............. 2.5 |

RN 8

RN 11
RN 12
Advanced Medical-Surgical Nursing (A) Clinical ............................................................. 2.5 Advanced Medical-Surgical Nursing (B).............. 2.5 Advanced Medical-Surgical Nursing (B) Clinical 2.5

Total 10
Recommended Elective: RN 151.

## 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 38
REQUIRED CORE COURSES Units
BA 19 Work Experience (Coop), Occup (300 hours)........ 4
BA 20 Law and the Legal System.................................... 3
BT 7* WordPerfect I...................................................... 2
BT 8* WordPerfect II..................................................... 2
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
Total 32
*BT 28 and 29 may be taken as alternatives to BT 7 and 8 .
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
PLEGAL 156 /
BT 140 Legal Office Administration ..... 2
PLEGAL 157 Legal Document Preparation. .....  2
Note: Associate degree requirements are listed on page 35 .
LEGAL ASSISTANT-CLERK - MAJOR \#2552
This program is designed to prepare the Business Office Assistant studentfor an entry-level clerical support staff position in the law office environment.Upon completion of the program, the student will possess the clerical skillsrequired for entry-level positions in a law office, be familiar with basic legalterminology, and understand the culture of the law office environment.
CERTIFICATE OF ACHIEVEMENT Units
BA 20 Law and the Legal System ..... 3
BT 30 Machine Transcription. ..... 2
BT 250 Office Skills Lab ..... 1
BT 112 Business English (Online) ..... 2
PLEGAL 14 Law Office Computing .....  3
PLEGAL 156/
BT 140 Legal Office Administration ..... 2
Total 13
PHILOSOPHY - MAJOR \#5340
A Philosophy major is a great way to develop critical and creative reasoning skills, enhance an ability to read complex materials with comprehension, and improve communication skills. These assets will be valuable as a transfer student to a four-year institution, whether you major in philosophy or some other field, and will enhance your preparation for a wide range of career opportunities.

## ASSOCIATE IN ARTS DEGREE

Requirements within program (21 Units) Units

## PHIL 1A Theories of Knowledge and Reality or

> PHIL 1AH
PHIL 1B
PHIL 1D
PHIL 4 Critical Reasoning.......................................... 3
PHIL 1C Ethics ................................................................. 3
PHIL 5 Philosophy of Religion;....................................... 3
PHIL 6 Introduction to Logic .......................................... 3
HUM 10 Classical Humanities........................................... 3
HUM 11 Modern Humanities ............................................ 3

> Note: An Associate in Arts Degree in Philosophy will be awarded to students who successfully complete a total of 60 units, which include the Associate Degree requirements and a minimum of 21 units of major course work listed above. Students seeking an associate degree may apply for an evaluation after they bave completed 30 - 40 units and are within one year of graduation.

## PHOTOGRAPHY

## PROFESSIONAL PHOTOGRAPHY - FORMERLY PHOTOGRAPHY - MAJOR \#5221

Students in this curriculum are trained in the major areas of professional photography. Positions for which graduates may qualify, depending upon their interest, abilities, and achievement, include those in the portrait, commercial, editorial, digital, laboratory, and retail fields. Some equipment and supplies provided.

## ASSOCIATE IN SCIENCE DEGREE AND CERTIFICATE OF ACHIEVEMENT FIRST YEAR

First Semester ..... Units
PHOTO 10 Basic Black \& White .....  3
PHOTO 12 Photoshop for Photographers .....  3
PHOTO 15 Photography \& Visual Literacy .....  3
Total 9
Second Semester ..... Units
PHOTO 20 Advanced Black \& White ..... 3
РНОТО 23 Digital Darkroom .....  3
PHOTO 25 Portraiture .....  3Total 9
SECOND YEAR
First Semester Units
PHOTO 30 Photojournalism \& Visual Communication .....  3
PHOTO 33 Basic Color Photography .....  3
PHOTO 35 Lighting Principles. .....  3
Total 9
Second Semester ..... Units
BA 50 Business Concepts ..... 1.5
BA51 Survey of Entrepreneurships ..... 1.5
PHOTO 40 Photo Editing \& Marketing
PHOTO 45 Independent Photo Study. ..... 3Total 9Recommended Electives: ART 3, FLLM 1, GRC 27, JourN 5.Note: Associate degree requirements are listed on page 35.
COMMERCIAL PHOTOGRAPHY - MAJOR \#5222

## 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.
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.
++ Pending State Chancellor's Office Approval.

Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

## Background Check

Upon entry into the program, students may be required to obtain a background check.

## 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

| SECOND YEAR |  |
| :---: | :---: |
| First Semester | Units |
| RAD 4A | Pathology ..................................................... 2 |
| RAD 4B | Advanced Clinical .......................................... 11 |
| RAD 4C | Advanced Positioning-Cranium ......................... 1 |
|  | Total 14 |
| Second Semester |  |
| RAD 5A | Special Procedures ......................................... 2 |
| RAD 5B | Specialized Clinical........................................ 11 |
| RAD 5C | Fluoroscopy ................................................... 2 |
|  | Total 15 |
| Summer Semester |  |
| RAD 6 | Concentrated Clinical ....................................... 6 |
|  | Total 6 |

## Radiologic Technology Program Requirements

A "C" or better grade is required in each course. In addition to the program application requirements and Radiologic Technology course sequence, the following courses are required to apply for the associate degree:
Psychology 2 (formerly Psychology 7)
Speech 1 or 2
Sociology 1A
Electives to complete the associate in science degree requirements
Note: All application requirements, program requirements and selection criteria are subject to change. Students will enter the selection pool based on the current catalog or catalog supplement. Contact a Fresno City College bealth career counselor every semester for current information.

## 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
BA 18 Business and the Legal Environment. .....  4
BA 33 .....  3
Computer Concepts .....  3
Business Math .....  3
Real Estate Principles. .....  3
Legal Aspects of Real Estate. .....  3
RE 44

+PSY 2 General Psychology. .....  3
+PE Physical Education Activity .....  1
Electives
Total 15
SECOND YEAR
First Semester ..... Units
*REC 21 Recreation Leadership .....  3
+BIOL $1 \quad$ Principles of Biol, or
BIOL 3 Introduction to Life Science .....  4
*PE .....  1
+ART 2Argumentation.
ENGL 3
SPEECH 25
Critical Reading \& Writing, orArt Appreciation. 3
Electives 2
Total 16
Second Semester ..... Units
*PE 62 Intro to Kinesiology. .....  3
*REC 19 Work Experience (Coop), Occup .....  4
+POLSCI 2 American Government, or POLSCI 110 American Institutions .....  3
MATH 45 Contemporary Mathematics .....  3
*PE Physical Education Activity .....  1
Electives .....  1

Recommended Electives: ART 10, 20; BA 5, 16, 18; BT 1, 131; Cultural Studies; English; JOURN 1; MUS 12; PHIL 1A; PHOT0 10; PE 31A; PHYSC 7; SOC 2, 32; TA 25, 26. For students planning to transfer as Recreation Therapy majors: BA 21, 33; BIOL 24; HIT 10, PSY 33, 39; SOC 10.
*Required major courses.
+Course requirements/General Education requirements for degree.

## RESPIRATORY CARE PRACTITIONER -

 MAJOR \#4610The respiratory care practitioner (RCP) is a health care specialist involved in managing, diagnostically evaluating, and providing care to patients with deficiencies and abnormalities affecting their cardiopulmonary system. Respiratory care practitioners comprise a critical sector of the allied health care workforce. A recent survey for the American Association for Respiratory Care (AARC) estimated that there are 111,700 RCPs employed in the United States. Currently there are 13,660 active licensed RCPs in California.

Respiratory care practitioners work under the direction of physicians. The scope of their practice ranges from delivering temporary relief to persons with asthma, pulmonary edema, chronic obstructive pulmonary disease (COPD) and emphysema, to providing emergency treatment for asphyxiation, heart failure, stroke, drowning, and shock. The diagnostic and therapeutic responsibilities include the administration of medical gases,
aerosols, environmental control systems, life sustaining mechanical ventilation, medication, chest physical therapy, pulmonary functions testing, and specialized cardiopulmonary procedures. The respiratory care practitioner works closely with the physician in assessing the patient and planning the proper respiratory care protocol. Most RCPs ( $75 \%$ ) work in a hospital setting and are key staff in critical care units and emergency rooms. Next to nurses, RCPs are the most frequently seen health care provider at the patient bedside. In addition, RCPs are present in the emergency room for resuscitation and are always a member of response teams that rush to the aid of patients who experience sudden cardiac arrest.

The respiratory care program is designed to prepare the student for employment in the health care delivery system, and to participate as a member of the health care team. Clinical work experiences in respiratory care are provided in selected local hospitals where students practice their skills under the supervision of the Fresno City College faculty.

## Essential Function and General Job Description

Utilizes the application of scientific principles for the identification, prevention, remediation, research, and rehabilitation of acute or chronic cardiopulmonary dysfunction thereby producing optimum health and function. Reviews existing data, collects additional data, and recommends obtaining data to evaluate the respiratory status of patients, develop the respiratory care plan, and determine the appropriateness of the prescribed therapy. Initiates, conducts, and modifies prescribed therapeutic and diagnostic procedures such as: administering medical gases, humidification and aerosols, aerosol medications, postural drainage, bronchopulmonary hygiene, cardiopulmonary resuscitation; providing support services to mechanically ventilated patients; maintaining artificial and natural airways; performing pulmonary function testing, hemodynamic monitoring and other physiologic monitoring; collecting specimens of blood and other materials. Documents necessary information in the patient's medical record and on other forms, and communicates that information to members of the health care team. Obtains, assembles, calibrates, and checks necessary equipment. Uses problem solving to identify and correct malfunctions of respiratory care equipment. Demonstrates appropriate interpersonal skills to work productively with patients, families, staff, and co-workers. Accepts directives, maintains confidentiality, does not discriminate, and upholds the ethical standards of the profession.

## State License and National Registration and Certification

Successful completion of the respiratory care program qualifies the graduate for an associate in science degree and satisfies eligibility requirements to take: (1) the licensing examination for the respiratory care practitioner credential issued by the California Respiratory Care Board, (2) the national registry examination for the registered respiratory therapist credential issued by the National Board for Respiratory Care.

## Program Statement

The Respiratory Care program is accredited by the Commission on Accreditation of the Allied Health Education Programs (CAAHEP), in collaboration with the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, TX 76021, 1-817-341-3627, http://www.coarc.com/.

## 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) examination.
3. Have completed Fresno City College Math 101 or higher, Biology 1 or 5, and Chemistry 3A or higher (or their college level equivalents) with a "C" grade or better.
4. Have attained a minimum average grade of " C " (2.0) in all completed college work.
5. Submit high school and college transcripts.

Note: It is the applicant's responsibility to request bis/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 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 (a physical examination form to be completed by a physician).
2. Complete designation of immunization and diagnostic tests.
3. Attend program orientation.

## Background Check

Upon entry into the program, students may be required to obtain a background check.

## 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 applicant 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 take the licensing examinations 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.

## ASSOCIATE IN SCIENCE DEGREE

Respiratory Care course sequence (all must be completed with a "C" grade or better):

## FIRST YEAR

First Semester Units
RCARE16 Patient Assessment............................................... 3
RCARE 17 Fundamentals of Patient Mgmt............................. 4
RCARE 18 Physiology of Respiratory System .......................... 2
RCARE 20 Intro to Respiratory Care...................................... 5
Total 11
Second Semester Units
RCARE 21 Applications \& Procedures .................................. 11
Total 11
SECOND YEAR
First Semester
RCARE $22 \quad$ Clinical Applications I.................................................
Total 9
Second Semester
Units
RCARE 23 Clinical Applications II ....................................... 9
RCARE 25 Respiratory Disease ............................................ 2
Total 11

## 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 requirements, the following courses are required to apply for the associate degree:

Biology 24, or Biology 20 and Biology 22
Biology 31
Physical Science 11 or Applied Technology 120
Psychology 2
Speech 1 or Speech 2
Sociology 1A
General education courses to complete the Associate in Science degree requirements.
Note: All applications 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 Science 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 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 <br> Units

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 Strategies for Academic Success............................ 2
DEVSER 292 College Awareness Survival Skills .......................... 2

## 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.

## ASSOCIATE IN ARTS DEGREE <br> TOTAL UNITS REQUIRED <br> 26

Required Core Courses ..... Units
or
HIST 29 History of Mexico .....  3
SPAN 3 Intermediate Spanish or Placement, or ..... SPAN 3NS
Spanish for Spanish Speakers .....  4
SPAN 4SPAN 4NS
High-Intermediate Spanish or Placement, or Spanish 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 .....  3Course Options: Select 6 Units

| CLS 11 | Intro to Chicano-Latino Studies, or |
| :---: | :---: |
| CLS 12 | Mexican American History, or |
| CLS 28 | Ancient Mexico ......................................... |

CLS 17
CLS 18
CLS 27
CLS 20
ENGL 40
CLS 21
LING 10
Beginning Mexican Folklorico Dance, or
Latin Jazz Ensemble, or
Advanced Mexican Folklorico Dance ..............2-4
Chicano Art......................................................... 3
Hispanic Literature emphasis only, or Chicano Literature.3
Notes: 1. An Associate in Arts degree in Spanish will be awarded to any candidate who successfully completes a total of 60 units which include associate degree requirements and a minimum of 26 units of course work as listed above. Associate degree requirements are listed on page 35. General Education requirements for transfer certification are listed on page 43.
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 Fundamentals of 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 35. General Education requirements for transfer certification are listed on page 43.
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 |  | Units |
| :--- | ---: | ---: |
| DEVSER 280 | SUCCESS Self Exploration............................... 6 |  |
| DEVSER 281 | SUCCESS Educational and Career Option.......... |  |
|  |  | 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.

## Background Check

Upon entry into the program, students may be required to obtain a background check.

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

First Semester Units
HIT 10 Medical Terminology ........................................... 3
MA 2 Pharmacology.................................................... 3
SURGT 101 Introduction to Surgical Technology ..................... 3 Total 9
Second Semester Units
$\begin{array}{ll}\text { BIOL 24\# } & \text { Human Anatomy \& Physiology, or } \\ \text { BIOL 20*+ } & \text { Human Anatomy, and } \\ \text { BIOL 22*+ } & \text { Human Physiology .....................................4-5 }\end{array}$
SURGT 102 Surgical Techniques.............................................. 3
SURGT 103 Surgical Procedures ............................................. 3
Total 10-11

## SECOND YEAR

First Semester Units
BIOL 31\# Microbiology....................................................... 5
SURGT 104 Clinical Practicum............................................. 6
Total 11
Second Semester Units
SPEECH 2 Interpersonal Communication............................. 3
SURGT 105 Advanced Clinical Practicum................................ 6
Total 9

## \# Courses have prerequisites. See catalog or a counselor.

*+ BIOL 20 and 22 may be substituted for BIOL 24.
Note: All courses listed are required for national certification. For the certificate of acbievement 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 35. General Education requirements for transfer certification are listed on page 43.

## National Certification

The Surgical Technology Program is accredited by the Commission on 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: 12 units | Units |  |
| :--- | :--- | ---: |
| EDA 19 | Work Experience (Coop), Occup ............................. 4 |  |
| EDUC 30 | Survey of Education .................................... 3 |  |
| ENGL 125 | Writing Skills for College, or |  |
| ESL 67 | Advanced Writing \& Grammar, or |  |
| ENGL 1A | Reading \& Composition................................. 4 |  |
| MATH 250 | College Arithmetic, or |  |
| MATH 101 | Elementary Algebra, or |  |
| MATH 102 | Plane Geometry, or |  |
| MATH 103 | Intermediate Algebra.................................3-5 |  |
|  |  | Total |
|  | $14-16$ |  |

* 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) ..... 14-16
Course Options: Select a Minimum of 9 Units ..... Units
ART 7 or 2 or 9 or 10 or 22A. .....  3
BIOL 1 or 3 .....  4
EDA 1 .....  2
ENGL 1A .....
GEOG 2 or 4A or 4B .....  3
HIST 1 or 2 ..... 3
HIST 11 or 12 .....  3
MATH 101 or 102 or 103 or 45. ..... 3-5
MUS 3 or 11 or 12 or 14 or 16 or 20 .....  3
PHYSCI 11 or GEOL 1 or 2 , or
GEOG 1 or 7 or 8 ..... 3-4
POLSCI 13 .....  3
PSY 2 or 38 or 39 .....  3
SPEECH 1 or 2 .....  3
Notes: 1. *Required Core Courses: 13 units of core courses required for thecertificate listed above with the exception of Math 250 which is non-degree 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 35. General Education requirements for transfer certification are on page 43.

## EDUCATIONAL AIDE: SPECIAL EDUCATION -

MAJOR \#5981

| CERTIFICATE |  | 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.

Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

## 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 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) 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 than the Design/Technical Theatre Studies major. Both major options emphasize 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 or
TA 26 Theatre Crafts II............................................. 3
TA $30 \quad$ Theatre Appreciation, or
TA 15C Playwriting.................................................... 3

TA 31
TA 32
TA 34
TA 35
TA 41
TA 42
TA 40
**TA 24
**TA 34
TA 43
TA 44
TA-46
Theatre History and Literature I .....  3
Theatre History and Literature II .....  3
Costume Practicum. .....  3
Costume Crafts .....  3
Beginning Acting, or
Beginning Acting for Theatre Majors .....  3
Performance Practicum, or
Theatre Crafts Practicum, orCostume Crafts Practicum .3
Intermediate Acting. .....  3
Actors Workshop .....  3
Voice for the Actor. .....  3
Total 36
** In addition to completing 3 units of Theatre Crafts Practicum and 3 units of Costume Crafts Practicum

Recommended electives: DANCE 9, 10, 11, 12, 14, 16; TA 28

## 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

## REQUIRED COURSES <br> Units

TA 24
Theatre Crafts Practicum.................................... 3
Theatre Crafts I.................................................. 3
TA $30 \quad$ Theatre Appreciation, or
TA 15C Playwriting.................................................... 3
TA 31 Theatre History and Literature I ............................ 3
TA 32 Theatre History and Literature II.......................... 3
TA 34
Costume Practicum............................................. 3
Costume Crafts ................................................... 3
Beginning Acting, or
Beginning Acting for Theatre Majors................ 3
Theatre Crafts II, .............................................. 3
Introduction to Stage Makeup............................. 2
TA 28 Introduction to Stage Makeup 2

Two of the following:
TA 27A Introduction to Scenic Design or
TA 27B Introduction to Lighting Design or
TA 36
Costume Design.
Total of 6 units
Total 35
Recommended electives: TA 43, TA 40.
Notes: 1. An associate in arts degree requirements 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 35. General Education requirements are for transfer certificate are listed on page 43.
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
CERTIFICATE OF ACHIEVEMENT
REQUIRED CORE COURSES
FIRST YEAR
First Semester Units
AT 10 Technical Computer Applications.......................... 2
AT $130 \quad$ Industrial Math, or
MATH 101 Elementary Math (or higher level)................3-5
DRAFT 12 Board Drafting Practices...................................... 3
WELD 2A Intro to Welding Technology ................................ 6 Total 14-16

## Second Semester

Units
AT 21 Occupational Safety \& Health............................... 2
AT 40 Preparing for Employment Opportunities.............. 3
WELD 2B Advanced Multi-Process Welding........................... 5
Total 10

## 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.


Recommended Electives: CAM 10; CADD 24, 34; ENGR 10, 11; WELD 19, 56.

Note: Associate degree requirements are listed on page 35 .

## WELDING DESIGN \& FABRICATION - MAJOR \#8371

This certificate provides pre-employment training for an entry level job in the welding fabrication industry. Instruction in the design and fabrication of metal projects will be completed through the welding process. Skills will be taught in design, materials cost estimation and manufacturing processes.
CERTIFICATE OF ACHIEVEMENT ++
FIRST YEAR
First Semester Units
AT 10 Technical Computer Applictions.......................... 2
WELD 3A Welding Design and Fabrication ........................... 5
Total 7
Second Semester Units
CADD 14 Computer Aided Drafting ...................................... 3
WELD 3B Advanced Welding Design and Fabrication............ 5 Total 8

## ++ Pending State Chancellor's Office Approval.

Note: Associate Degree requirements change Fall 2009. Refer to page 35 for details.

## WELDING MULTI-PROCESS - MAJOR \#8373

## CERTIFICATE OF ACHIEVEMENT

This certificate provides pre-employment training for an entry level job in the welding industry. Instruction in the areas of shielded metal, gas metal, gas tungsten and flux cored arc welding along with oxyacetylene welding and cutting and plasma cutting will be presented. Skills will include welding in the flat, horizontal, vertical and overhead positions with the various processes as well as welding with aluminum and stainless steel with the Gas Metal and Gas Tungsten arc welding processes. Students will also use common power and hand tools to compliment related to the welding industry.

## First Semester Units

AT 130 Industrial Math .................................................. 3
WELD 2A Introduction to Welding Technology...................... 6
Total 9
Second Semester Units
DRAFT 12 Board Drafting Practices...................................... 3
WELD 2B Advanced Multi-Process Welding........................... 5
Total 8

## 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 Changing Roles of Women ............................... 3
WSTS/HS 25 Assertiveness Training.................................... 2
Total 5
COURSE OPTIONS: Select 15 Units Units
WSTS/SOC 5 Sociology of Rape................................................ 3
WSTS/SOC 7 Domestic Violence: Abuse Within the Family ......... 3
WSTS/CLS 24 La Chicana and Latina ........................................ 3
WSTS/ENGL 36 Women in Literature ............................................ 3
WSTS/AFRAM 41 The African-American Woman ............................. 3
WSTS/FN 43 Women's Nutrition.............................................. 2
WSTS/BA 44 Women in Management ...................................... 3
Note: Associate degree requirements are listed on page 35.

## 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 or regulation, every course, section or class, 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 Subchapter 1, Chapter 6, Division 6, Title 5 of the California Code of Regulations, commencing with Section 55000.

Courses generally offered in only one of the two regular semesters are identified with a Fall (fall semester) or Spring (spring semester). Courses generally offered in only the evening program or during the summer session are so designated.

The State has mandated the maximum number of times a course may be repeated is three (3).

Repeatable courses are designated with the number of repeats in parenthesis following the course units and hours. For example,

| Course Name | Initial <br> Enroll. | Number of <br> Repeats | Max. Times <br> Taken |
| :--- | :---: | :---: | :---: |
| AJ $216($ 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.

## 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

1-99

100-199

200-299
300-399

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 55000 and 55062, 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 260 Accounting Skills Lab
Accounting 270
Admin of Justice 200
Admin of Justice 201
Admin of Justice 202
Accounting Math Skills
Interview/Interrogation Techniques
Explosives Recognition/Response
EthDilemmas in Pub Sfty Agncy

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 221
Admin of Justice 230
Admin of Justice 231
Admin of Justice 232
Admin of Justice 268
Admin of Justice 269
Admin of Justice 269A
Admin of Justice 270
Admin of Justice 271
Admin of Justice 271A
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 279A
Admin of Justice 280
Admin of Justice 281
Admin of Justice 282
Admin of Justice 285
Admin of Justice 286
Admin of Justice 287
Admin of Justice 290
Admin of Justice 291
Admin of Justice 292
Admin of Justice 293
Admin of Justice 294
Admin of Justice 295
Admin of Justice 296

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
Explosive Recog for First Respndrs
Force Option Simulator
Driver Awareness
Police Driving Simulator
Pre-Police Academy Conditioning
Advanced Officer Topics
Advanced Officer Topics \#2
Basic Police Academy
Bas Res Police Acad, P.C. 832
PC832 (Intensive Format)
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
Citizens on Patrol
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
Officer Safety
Traffic Accident Investigation
Homicide Investigation

| Admin of Justice 297 | Baton and Defense Tactics Seminar |
| :---: | :---: |
| Admin of Justice 298 | Sexual Assault Investigation |
| Admin of Justice 299 | Basic Bicycle Patrol |
| Air Conditioning 250 | Digital Unitary Controls |
| Air Conditioning 251 | Digital VAV Controls |
| Air Conditioning 252 | DDC Network Controllers |
| Air Conditioning 260B | Electricity for Air Conditioning |
| Air Conditioning 260C | Residential Heating |
| Air Conditioning 260D | Advanced Troubleshooting |
| Applied Technology 212 | Computer Skills Lab |
| Art 251 | Open Art Studio |
| Auto Tech 261 | Clean Air Car—Diag \& Rep |
| Auto Tech 261A | Basic Clean Air Car Course (BCACC) |
| Auto Tech 261B | Advanced Clean Air II |
| Auto Tech 261C | BAR Update Training |
| Auto Tech 262A (A6) | Electrical/Electronic Training <br> Program—BAR/ASE (Alt) |
| Auto Tech 262 B (A8) | Engine Performance Training <br> Program—BAR/ASE (Alt) |
| Auto Tech 262 C (L1) | AOW Engine Performance Training Program—BAR/ASE (Alt) |
| Auto Tech 281A | Automatic Trans |
| Auto Tech 281B | Automatic Trans |
| Auto Tech 282A | Suspen/Wheel Align |
| Auto Tech 282B | Auto Braking Systems |
| Auto Tech 283A | Tune-up \& Diag |
| Auto Tech 283B | Electrical Systems |
| Auto Tech 284 | Auto Air Conditioning |
| Auto Tech 285 | Auto Engines |
| Auto Tech 286 | Automotive Information Systems |
| Auto Tech 292 | Cert Preparatory |
| Auto Tech 294 | Lamp/Brk Adj Prep |
| Biology 261 | Internet and Computer Skills Lab |
| Biology 270 | Biology Readiness |
| Business \& Technology 206 | Automated Business Records |
| Business \& Technology 240 | Legal Issues in Medical Billing |
| Business \& Technology 250 | Office Skills Labs |
| Business \& Technology 251 | Office Application Skills Lab |
| Business \& Technology 270 | Business Math \& Ten Key |
| Business \& Technology 271 | Grammar Fundamentals |
| Business \& Technology 272 | Office Procedures |
| Business \& Technology 273 | Filing |
| Business \& Technology 274 | Introduction to Microsoft 0utlook |
| Business \& Technology 277 | Accelerated Excel |
| Computer Info Tech 202 | Introduction to Online Learning |
| Computer Info Tech 205 | Computer Basics |
| Computer Info Tech 237 | Network+ Preparation |
| Computer Info Tech 238 | A + \& Server + Systems Fund |
| Computer Info Tech 239 | INET+ Preparation |
| Computer Info Tech 260 | Computer Skills Lab |
| Computer Info Tech 261 | Internet Skills Lab |
| Computer Info Tech 277 | Accelerated Excel |
| Computer Science 261 | Internet and Computer Skills Lab |

Baton and Defense Tactics Seminar
Sexual Assault Investigation
Basic Bicycle Patrol
Digital Unitary Controls
Digital VAV Controls
DDC Network Controllers
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)

Program—BAR/ASE (Alt)
AOW Engine Performance Training

Automatic Trans
Automatic Trans
Suspen/Wheel Align

Tune-up \& Diag
Electrical Systems

Auto Engines
Automotive Information Systems
Iamp/Brk Adi Prep
Internet and Computer Skills Lab
iology Readiness
omated Business Records
gal Issues in Medical Billing
fice Skills Labs

rammar Fundamentals
Office Procedures

Introduction to Microsoft Outlook
Accelerated Excel

Computer Basics
etwork+ Preparation

INET+ Preparation
muter Skills La

Accelerated Exce
Internet and Computer Skills Lab

Dental Hygiene 200
Developmental Services 250
Developmental Services 251
Developmental Services 252
Developmental Services 255
Developmental Services 260
Developmental Services 262
Developmental Services 264
Developmental Services 265
Developmental Services 272
Developmental Services 273
Developmental Services 275
Developmental Services 276
Developmental Services 277
Developmental Services 278
Developmental Services 279
Developmental Services 280
Developmental Services 281
Developmental Services 282
Developmental Services 291
Developmental Services 292
Education 200A
Education 200B
Electrical Systems Tech 240
Electrical Systems Tech 261

Electrical Systems Tech 262

Electrical Systems Tech 263

Electrical Systems Tech 264

Electrical Systems Tech 269A
Electrical Systems Tech 269B
Electrical Systems Tech 272
Electrical Systems Tech 273
English 250
English 252
English 260
English 262
English 277
English 278
English 279
English 280
English 281
English 282
ESL 262
ESL 263R
ESL 263W
ESL 264R
ESL 264W
ESL 265R
ESL 265W

Clinical Dental Hygiene IV
Workability Assessment and Career Awareness
Workability Preparation and Job Placement
Workability Strategies and Job Maintenance
Workability Experience
Workability
Group Inter for Stud w/Disabilities
Trans to College Stud w/Disabilities
Indiv Instruc Problems
Consumer Skills
Independent Living Skills
Horticulture Skills I
Horticulture Skills II
Adapted Computer Literacy
Modified Word Processor
Modified Computer Applications
SUCCESS Self-Exploration
SUCCESS Eductnl \& Career Option
Greenhouse Workforce Prep
Strategies for Academic Success
College Awareness Survival Skills
CBEST Preparation: English
CBEST Preparation: Mathematics
Building Automation
Networking Essentials-
Instructor Training
Router Theory and TechnologyInstructor Training
Advanced Routing and SwitchingInstructor Training
Advanced Networking and
Management-Instructor Training
Fundamentals of Network Security-Firewalls Fundamentals of Wireless LANS
Introduction to Electronics
Industrial Motor Control
Basic Writing
Reading Improvement
Basic Reading
Writing Improvement
Reading Skills
Reading Comprehension
Beg Spell and Vocab
Advanced Spelling and Vocabulary
Grammar and Sentence Writing
Paragraph Writing
Basic Academic Study Skills
Low Intermediate Reading and Vocabulary
Low Intermediate Writing and Grammar
Intermediate Reading and Vocabulary
Intermediate Writing and Grammar
High Intermediate Reading and Vocabulary
High Intermediate Writing and Grammar

## ESL 270

ESL 273
Fire Technology 261
Fire Technology 269
Marketing 250
Marketing 251
Marketing 252
Marketing 253
Marketing 254
Marketing 255
Marketing 256
Math 250
Math 255
Math 260A
Math 260B
Math 260C
Math 260D
Math 277
Music 250
Music 251
Nursing, Registered 201
Special Studies 277
B. Noncredit

Air Conditioning 353
Apprenticeship 360
Apprenticeship 361/3B
Apprenticeship 361/6J
Clerical Training 370
Developmental Services 359
ST 300
Special Studies 377
Theatre Arts 348
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
Manuf Mechanic 351
Manuf Mechanic 352A
Manuf Mechanic 352B
Manuf Mechanic 352C
Manuf Mechanic 352D
Manuf Mechanic 353A
Manuf Mechanic 353B
Manuf Mechanic 353C
Manuf Mechanic 354A
Manuf Mechanic 354B
Manuf Mechanic 354C

Pronunciation Improvement and Accent Reduction
English Essentials for Hlth Professionals EMT 1 Refresher
Advanced Firefighter Topics
Computerized Marketing
Introduction to Marketing
Customer Service
Personal Development
Business Presentations
Telemarketing
Call Center Telemarketing
College Arithmetic
Pre-Algebra
Arithmetic Review: Whole Numbers
Arithmetic Review: Fractions
Arithmetic Review: Decimals
Arithmetic Review: Percents
Arithmetic for Learn Disabled
Piano Teaching I
Piano Teaching II
NCLEX-RN Review
Credit, Nondegree SP ST

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

Engine Performance
Auto Col Rep/Paint Refin
Warehouse and Distribution Careers
Fund-Weld/Machine Shop
Fund Hydraul/Pneumatics
Electrical Fundamentals
Introduction to Manufacturing
Trade Mathematics
Programmable Controllers
Job Preparation
Technical Report Writing
Fluid Power Fundamentals
Pneumatic Fundamentals
Hydraulic Fundamentals
Power Transmission
Welding Fundamentals
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, Oakhurst and Willow International) 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 | REEDLE | COLLEGE |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| ACCTG 4 A | Financial Accounting | ACCTG 1A | Principles of Accounting |
| ACCTG 4B | Managereial Accounting | ACCTG IB | Principles of Accounting |
| ACCTG 19 | Work Expereience, Cooperafire Ocup | ACCTG 19V | Cooperative Work Experience, Accounting |
| ANTHR0 1 | Biological Anthropology | ANTHR0 1 | Biological Anthropology |
| ANTHRO2 | Cultural Anthropology | ANTHRO2 | Cultural Anthropology |
| ANTHRO3 | Intro to trchaedogoy \& Prenistory | ANTHR03 | Intro to Archaedogy \& Prenhistory |
| ART2 | Artapprecaition | ART2 | Att Appreciation |
| ART5 | Atrisisory 1 | ART5 | Anthistory 1 |
| ART6 | Anthistory 2 | ART6 | Atthistory 2 |
| ART6H | Honors Att History 2 | ART 6 H | Honos Artt History 2 |
| ART7 | Beginning Drawing | ART7 | Beginning Drawing |
| ART9 | Begginning Painting: Oil/Acrylic | ART9 | Beginning Painting: Oil/Acrylic |
| ART 10 | Beginning Ceramics | ART 10 | Beginning Ceramics |
| ART13 | Beģinning Waterecolor Painting | ART 13 | Beginning Waterecolor Painting |
| ART 17 | Intermeliate Drawing | ART 17 | Intermeliate Drawing |
| ART 19 | Intermediate Painting: Oil/Acrylic | ART 19 | Intermediate Painting: Oil/Acrylic |
| ART 20 | Intermediate Ceramics | ART 20 | Intermediate Ceramics |
| ART 23 | Intermediate Watercolor Painting | ART 23 | Intermediate Waterolor Painting |
| ASL1 | Beginning American Sign Language | ASLI | Beginning American Sign Langulage |
| ASL2 | High Begining American Sign Langlage | ASL2 | High Beginning American Sign Langulage |
| ASL3 | Intemedidite American Sign Language | ASL3 | Intermediate American Sign Language |
| ASL 4 | High Inter American Sign Langulage | ASL 4 | High Inter American Sign Language |
| ASTR0 10 | Basic Astronomy | SCI3 | Introduction to Atronomy |
| AUTOTO | Automotive Essentials | AUTOT9 | Automotive Essentials |
| BA5 | Business Communications | BA5 | Business Communications |
| BA 10 | Introduction to Business | BA 10 | Introduction to Business |
| BA11 | Introduction to Hospitality Managgement | AA 12 | Introduction to Hospitaity |
| BA 18 | Business and the Legal Environment | BA 18 | Business and the Legal Environment |
| BA 19 | Work Experience (Copereatire), Ocaupational | al Bal 19 V | Work Experience (copereatie), Occupadional |
| BA27 | Students in Free Enterprise (SIFE) | BA 27 | Students in Free Enterpise (SFFE) |
| BA33 | Human Relations in Business | BA33 | Human Relations in Business |
| BA34 | Fundamental of IIrresting | BA34 | Fundamental of invesing |
| BA38 | Operation of the Small Business | BA38 | Operation of the Small Business |
| BA 40 | Superision and Leadeship | BA15 | Introduction to Manangement |
| BA52 | Introduction to Entreprenuesship | BA 52 | Introduction to Entreprenuesship |
| BA55 | Introduction to Logisics | BA 55 | Introduction to Logisics |


| FRESNO | CITY COLLEGE | REEDLEY | COLLEGE |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| BIOL 1 | Principles of Biology | BIOL1 | Principles of Biology |
| BIOL3 | Introduction to Life Science | BILL3 | Introduction to Life Science |
| BIOL 4 | Principles of Zoology | BILL 4 | Principles of Zoology |
| BIOL 5 | Human Biology | BILL 5 | Human Biology |
| BIOL 6 | Principles of Botany | BILL 6 | Principles of Botany |
| B10L20 | Human Anatomy | BIOL 20 | Human Anatomy |
| BIIL22 | Human Physiology | BIOL 22 | Human Physiology |
| BIIL31 | Microbiology | BIOL31 | Microbiology |
| BT 4 | Ten-Key Calculation | BA 46 | Calculator Aplications |
| BT5 | Busines Communications | BA5 | Business Communications |
| CHDEV3 | Early Childhood Curriculum | CHDEV 33A | ECC: ArtDramaNusisic |
| CHDEV5 | Parent Education | CHDEV 5 | Parent:Education |
| CHDEV6 | Infant-Child Health \& Sadety | CHDEV 6 | Infant-Child Health \& Sadety |
| CHDEV8A | School Age Chill: Growth \& Develop | CHDEV 8 A | Programs for School Age Child Care |
| CHDEV 8 B | Programs for School Age Child Care | CHDEV 8B | Programs for School Age Child Care |
| CHDEV11 | The Young Child with Special Needs | CHDEV 35 | Exceptional Children |
| CHDEVPSY 12 | Child Abuse | CHDEV 12 | Child Abuse |
| CHDEV 15 | Divesity Issues in Early Care and Education Programs | CHDEV15 | Divesity Issues in Early Care and Edicator Programs |
| CHDEV 16 | Intro to Early Intererention | CHDEV 32 | Intro to Early Interenention (3-unit course) |
| CHDEV 17A | Infant Derelopment-Birth to Age Three | CHDEV 7 | Infant-Todder Development \& Care |
| CHDEV 17B | Adranced Infant Todder Pereop \& Care | CHDEV7A | Advanced Infant Toddler Develop \& Care |
| CHDEV 30 | Child, Family and Community | CHDEV30 | Child, Family and Community |
| CHDEV 37A | Early Childhood Prog \& Practices | CHDEV 37A | Early Childhood Prog \& Practices |
| CHDEV 37B | Early Childhood Prog \& Practices | CHDEV 37B | Early Childhood Prog \& Practices |
| CHDEVPSY 38 | Lifespan Development | CHDEVPSY 38 | Lifespan Development |
| CHDEVPSY 39 | Child Development | CHDEV 39 | Child Derelopment |
| CHDEV 40A | Admin of Early Childhood Programs | CHDEV 40A | Admin of Early Childhood Programs |
| CHDEV 40B | Adv ddmin of Ealy Childhood Programs | CHDEV 40B | Adv Admin of Early Childhood Programs |
| CHDEV 42 | Child Jutution | CHDEV 42 | Child Nutution |
| CHDEV 45 | Adult Supenision ECEC Classoons | CHDEV 45 | Superision of Adults in ECE Classromms |
| CHDEV 151 | Introduciton to Family Child Care | CHDEV 151 | Introduction to Family Child Care |
| CHDEV 152 | Quality Program in Family Child Care | CHDEV 152 | Quality Programs in Family Child Care |
| CHEM 1 A | General Chemistry | CHEN IA | General Chemistry |
| CHEM 1 B | General Chemistry \& uad Analysis | CHEN IB | General Chemistry \& Qual Analysis |
| CHEM 3 A | Introductory General Chemistry | CHEM 3 A | Introductory General Chemistry |
| CHEM 3 | Intro Organic \& Biological Chemistry | CHEN 3B | Intro Organic \& Biological Chemistry |
| CHEM 8 8 | Elementary Organic Chemistry | CHEM 8 | Elementary Organic Chemistry |
| CHEM 28A | Organic Chemistry | CHEM 28A | Organic Chemistry |
| CHEV 28B | Organic Chemistry | CHEM 28B | Organic Chemistry |
| CHEM 29A | Organic Chemistry Laboratory | CHEM 2\%A | Organic Chemistry Laboratory |
| CHEM 298 | Organic Chemistry Laboratory | CHEM 29B | Organic Chemistry Laboratory |
| CIT 12 | Computer Literacy | IS 12 | Computer Literacy |
| CIT 15 | Computer Concepts | IS 15 | Computer Concepts |
| CIT 19 | Work Experience (Cooperative), Occupational | IS 19V | Cooperatire Work Experience, Information Ssstems |
| CIT 23 | Spreadsheet Fundamentals | IS 18 | Spreadsheet Fundamentals |
| ClT60 | Beģining Visual Basic | IS 47 | Visulal Basic |
| Cli 63 | BeginningJara Programming | IS33 | Beginning Java Programming |
| CIIT202 | Introduction to Online Learning | IS202 | Introduction to Online Learning |
| CLS 21 | Chicano itierature | EVGL 49 | Latino \& Chicano Literature |


| FRESNO | CITY COLLEGE | REEDLE | COLLEGE |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| COUN47AB | College Study Skills | CoUN47 | Learning Strategies |
| COON53 | College and Life Management | COON53 | College and Lite Management |
| COUN 150 | College Introduction | CoUN 120 | College Introduction |
| CRIM 1 | Intro to Criminology | CRIM 1 | Intro to Criminology |
| CRIM3 | Legal Aspects of Eridence | CRIM3 | Legal Aspects of Exidence |
| CRIM 4 | Principles \& Procedures of the Justice System | CRIM 4 | Principles \& Procedures of the Justice System |
| CRIM 5 | Community Reations | CRIM5 | Community Realions |
| CRIM 6 | Concepts of Criminal Law | CRIM 6 A | Criminal Law |
| CRIM 7 | Concepts of Enforcement Services | CRIM 7 A | Police Operations \& Procedures |
| CRIM 8 | Criminal Investigation | CRIM8 | Investigation of Crime Scenes |
| CRIM 11 | Jurenile Delinquency | CRIM 11 | Juvenile Procedures |
| CRIM 12 | Criminal Justice Communications | CRIM 12 | Justice Sjstem Communications |
| CRIM 19 | Work Experience (Cooperative) Occupational | CRIM 19V | Cooperatirie Work Experience, <br> Criminal Justice |
| CRIM 20 | Intro to Corrections | CRIM 20 | Intro to Corrections |
| CSCI 20 | Programming in the FORTRAL Langugage | ENCR 22 | ForTRAI 77 Programming |
| CSCI 26 | Discree Mathematics for ComputerScience | CSCI 26 | Discrete Mathematics for Computer Science |
| CSCI 40 | Programming Concepts \& Mehthods I | ENCR 40 | Programming for Sci \& Engin |
| CSCI 40 | Programming Concepts \& Methods I | CSCI 40 | Programming Concepts \& Mehhods I |
| CSCI 41 | Programming Concepts \& Methods II | CSCI 41 | Programming Concepts \& Vethods II |
| DEISER 250 | Workability Assesment \& Career | DEISER 250 | Workability Assesment \& Career |
| DEISER 251 | Workability Prparation \& Jo Placement | DEISER 251 | Workability Preparation \& Job Placement |
| DEISER 252 | Workadility Stuadegie \& Job Maintenance | DEISER 252 | Workajility Stategeies \& Job Maintenance |
| DEISER 255 | Workability Experience | DEISER 255 | Workability Experience |
| DEISER 262 | Group Interaction for Sutents with Disbuilites | DEISER 262 | Group Interaction for Sudents with Disbililites |
| DEISER 264 | Transition to Collegeg for Sudents with Disabilities | DEISER240 | Transition to Collegefor Sudents with Disbailities |
| DEISER 272 | Consumerskills | DEISER 272 | Consumerskills |
| DEISER 273 | Independentil Living Skills for SSPRSS Sudents | Is DEISER 273 | Independent Living Skills |
| DEISER 275 | Horticulture Skills I | DEISER 275 | Horticulture Skills I |
| DS23 | Business Statistics | STAT 7 | Elementary Statistics |
| DS 117 | Business Mathematics | DS 117 | Business Mathematics |
| ECON 1A | Intro to Macroeconomics | ECON 1A | Intro to Macroeconomics |
| ECON 1 B | Intro to Microeconomics | ECON 1B | Intro to Nicreceonomics |
| EDIC 30 | Surrey of Edication | EDIC 10 | Introduction to Teaching |
| EVGL 14 | Reading and Composition | EVGL 1 A | Reading and Composition |
| EVGL 1AH | Honos Reading and Composition | Evgl laH | Honos Reading and Composition |
| EVGL IB | Intro to the Sudy of ilierature | EVGL 1 1B | Intro to the Sudy of ilierature |
| EVGL 1 BH | Honors Intro to the Sudy of Literature | EVGL 1 BH | Honos Sinto to the Study of Literature |
| ENGL3 | Critical Reading and Writing | ENGL3 | Critical Reading and Writing |
| EIVL 3 H | Honous Critical Reading and Writing | EVGL 3H | Honoos Sritical Reading and Writing |
| EVGL 154 | Creative Writing: Poetry | EVGL 154 | Creative Writing: Pooty |
| EVGL $15 B$ | Creative Writing: Ficion | EVGL 15B | CreativeVVIriting: Fiction |
| EVGL 44 A | Word Literature to the Renaissance | EVGL 44A | Word Literature to the Renaissance |
| Evgl 44 B | Wordd Iiterature Since the Renaissance | Evgl 44 B | World itieature Since the Renaisance |
| EVGL 460 | English Literature to 1800 | Evgl 46 A | English Literature to 1800 |
| Evgl 46 B | English Literature from 1800 to Present | Evgl 46 B | English Literature from 1800 to Present |
| EVGL 47 | Introduction to Shakespeare | EVGL 47 | Shakespeare |
| EVGL 105 | Grammar and Punctuation | EVGL 105 | Grammar and Punctuation |


| FRESNO | CITY COLLEGE | REED | COLLEG |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| ENGL 125 | Writing Skills for College | EVGL 125 | Writing Skills for College |
| ENGL 126 | Reading Skill for College | EVGL 126 | Reading Skills for College |
| ENGL 250 | BasiclViriting | EVIGL 250 | Basic Writing |
| ENCLL252 | Writing Improvement | EVGL 252 | Writing Improvement |
| ENGL 260 | Basic Reading | EVGL 260 | Basic Reading |
| ENGL 262 | Reading Improvement | EVGL 262 | Reading Improvement |
| EIGR2 | Graphics | ENGR2 | Graphics |
| EIGR 4 | Engineering Materials | ENGR 4 | Engineering Materials |
| EIGRG | Circuits with Lab | ENGR6 | Circuits with Lab |
| EIGR 8 | Staits | EIGR8 | Statics |
| ENGR 10 | Introduction to Engineering | ENCR 10 | Introduction to Engineering |
| EST61 | Networking Essentials | IS 49 A | LaN Fundamentals - Cisco 1 |
| EST62 | Router Theory \& Technology | IS 498 | Router Theory \& Technolog-Ciscoil Technology |
| EST63 | Adv. Routing \& Switching | IS490 | Ad. Routing \& Suithing - Ciso III Suithing |
| EST64 | Adr. Vetworking \& Management | IS 49D | Adr. Networking \& Mgmnt- Cisco IVMgmnt |
| FILM 1 | Introduction to Film Sudies | FILM 1 | Introduction to Film Studies |
| FLIM 2 B | History of Cinema 1960 to Present | FLIM 2 B | History of Cinema 1960 to Present |
| FLLIL 5 | Digital Filmmaking | FLLM5 | Digita Filmmaking |
| EN35 | Nutrition and Healh | fn 35 | Nutrition and Health |
| FN 40 | Nulutition | FN 40 | Nutrition |
| FN41 | Sports Sutrition | FN41 | Sports Nutrition |
| FNCHDEV 42 | Child Nutrition | FN 42 | Child Nutrition |
| FRENCH 1 | Begrining French | FRENCH 1 | Beginning French |
| FRENCH2 | High Beginning French | FRENCH2 | High Beginning French |
| FRENCH3 | Intermediate French | FRENCH3 | Intermediate French |
| FRENCH 4 | High Intermedidete French | FRENCH 4 | High Intermediate French |
| FSM 35 | Food Serices, Sanitation, Sadety and Equipment | FN 20 | Sanitation, Saety, \& Equipment for Food Serice |
| GEOG 4 A | World Geography | GEOG 4 A | World Seography |
| GEOG 4B | World Geography | GEOG 4B | World Geography |
| GEDL 1 | Physical Geology | GEDL 1 | Physical Geology |
| GEOL2 | Historical Geology | GEDL 2 | Historical Seology |
| GEDL) | Introduction to Earth Science | GEDL9 | Introduction to Eath Science |
| GERIVAV1 | Beginning German | GERVAI 1 | Beginning German |
| GERIMN2 | High Beginning German | GERVAN2 | High Beginning German |
| GERINA 3 | Intermedidite German | GERVAN3 | Intermediate German |
| GERIMN4 | High Internelidite German | GERIVAV 4 | High Intermediaite Geeman |
| HEC7 | Interior Design | FM 30 | Interior Design |
| HIST 1 | Western Civilization to 1648 | HIST 1 | Western Civilization to 1648 |
| HIST2 | Western Civilization Since 1648 | HIST 2 | Western Civilization Since 1648 |
| HSTT 11 | History of the United States to 1877 | HIST 11 | History of the United States to 1877 |
| HSTT 12 | History of the United States Since 1877 | HIST 12 | History of the United States Since 1877 |
| HST' 20 | Comparative Worid C Civilizations to 1600 | HIST 20 | Comparative Worid Civilizations to 1600 |
| HITH1 | Contemporary Health Issues | HITH1 | Contemporary Health Issles |
| HILH2 | Firstaid and Sadety | HITH2 | Firstidid and Sadety |
| HS 19 | Work Experience (Cooperative) Occup | HS 19V | Work Experience (Cooperative) Ocup |
| HS 20 | Introduction to Scial Work | HS 20 | Introduction to Social Work |
| HS 24 | Fund of Interiewing and Counseling | HS 24 | Fund of Interieving and Counseling |
| HS 30 | Group and Community Social Services | HS 30 | Group and Community Social Sericices |
| Jourv 1 | Introduction to Mass Communication | Jourv 1 | Introduction to Nass Communication |
| jourv3 | Nerswriting | Jourv3 | Nerswriting |


| FRESNO CITY COLLEGE |  | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| LING 10 | Introduction to Language | LING 10 | Introduction to Language |
| LINGG 11 | Intio to Language for Educators | LINGG 11 | Introduction to Language |
| NMTH 4 A | Trigonometry | NATHA 4 A | Trigonometry |
| NATH 4 B | Pre-Calculus | NATHH 4B | Precalaulus |
| MATH 5 | Math Analysis I | NATH5 5 A | Math Analysis I |
| MATH SB | Math Analysis II | NATH5 5B | Math Analysis II |
| MATH6 | Math Analysis III | NATH6 | Math Analysis III |
| MATH7 | Introduction to Differential Equations | NMTH7 | Introduction to Differential Equations |
| MATH 10 A | Structure and Concepts in Mathematics I | NATH 10 A | Structure and Concepts in Mathematics I |
| MATH 10 B | Structure and Concepts in Mathematics II | MATH 108 | Structure and Concepts in Mathematics II |
| NATH 11 | Elementary Statistics | NATH 11/STIT7 | Elementary Statistics |
| MATH21/DS 21 | Finite Mathematics | NATH 21 | Finite Mathematics |
| NATH26 | Elementary Linarar llgebra | NATH26 | Elementary Linear Algebra |
| MMTH 45 | Contemporary Mathematics | NATH45 | Contemporary Mathematics |
| MATH 101 | Elementary Iggobra | NATH 101 | Elementary Algebra |
| MATH 102 | Plane Ceometriy | NATH 102 | Plane Geometry |
| MATH 103 | Internedidite Algbira | NATH 103 | Intermediate Algobra |
| MATH 250 | College Arithmetic | NATH 250 | College Arithmetic |
| MATH 255 | Pre-llgebra | NATH 256 | Algebra Topics |
| MATH 260 B | Airithmetic Review: Practions | MATH 200 B | Arithmetic Review: Fractions |
| MKTG 10 | Principles of Marketing | NKTG 10 | Marketing |
| MKTG 11 | Salesmanship | NKTG 11 | Salesmanship |
| MKTG 12 | Advertising and Promotion | NKTGG 12 | Advertising and Promotion |
| MKTG 14 | Retailing | NKTGG 14 | Retailing |
| MUS 1A | Music Theory I | MISSIA | Nusis Theory I |
| MUS 1B | MusicTheory II | MUS $1 B$ | Music Theory II |
| MUS2A | Music Theory III | MUSS2A | Music Theory III |
| MUS 2B | MusicTheory IV | MUS2B | MusicTheory IV |
| MUS3 | Music Fundamentals | MLS3 | Music Fundamentals |
| MUS7A | EarTraning: Level I | MUS7A | Ear Traning: Level I |
| MUS $7 B$ | Ear Training: Level II | MUSS 78 | EarTraining: Level II |
| MUS 12 | Music Appreciation | MUSS 12 | Music Apprecition |
| MUS 16 | Jazz History and Appreciation | MUSS 16 | Jazz History and Appreciation |
| MUS 18 | Basic Conducting and Score Reading | MUS18 | Basic Conducting and Sorer Reading |
| MUS 20 | Beginning Piano: Level I | MUSS 20 | Beginning Piano: Level I |
| MUS21 | Begginning Piano: Level II | MUS21 | Beginning Piano: Level II |
| MUS 22 | IntermediateAdranced Piano | NUSS22 | IntermediateAdranced Piano |
| MUS24 | Elementary Voice: Level I | MUS 24 | Elementary Vice: Level I |
| MUS27 | Beginning Guitar: Level I | MUS27 | Beginning Guitar: Level I |
| MUS 28 | Beginning Guitar: Level II | MUS28 | Beģinning Guitar: Level II |
| MUS30 | College Choir | MUS31 | Concert Choir |
| MUS40 | ConcertBand | MUSS 40 | Concert Band |
| MUS41 | JazEEnsemble | MUS41 | JazzEnsemble |
| NATSCI 1A | Integrated Sci: Physios \& Chemistry | SCIIA | Introductory Chemical \& Physical Science |
| PE4 | Badminton | PE4 | Badminton |
| PE5 | Baskettall | PE5 | Basketball |
| PE6 | Fitness and Health | PE6 | Fitness and Health |
| PE7 | Golf | PE7 | Golf |
| PE 12 | Swimming | PE 12 | Swimming |
| PE13 | Tennis | PE 13 | Tennis |
| PE 14 | Vollepball | Pe 14 | Volleptall |


| FRESNO CITY COLLEGE |  | REEDLEY COLLEGE |  |
| :---: | :---: | :---: | :---: |
| Course | Title | Course | Title |
| PE20 | Athletic Training | PE 20 | Athletic Training |
| PE30A | Theory of Basball | PE30A | Theory of Bxeball |
| PE 30B | Competitive Basball | PE30B | Competitive Basball |
| PE30C | Off-Sesoon Conditioning for Baseball | PE30C | Off-Sesson Conditioning for Baseall |
| PE31A | Theory of Basketball | PE31A | Theory of Basketball |
| PE31B | Compeitive Basketball | PE31B | Competitire Baskethall |
| PE31C | Off-Season Conditioning for Raskethall | PE31C | Off-Sesson Conditioning for Basketall |
| PE33A | Theory of Football | PE33A | Theory of Footall |
| PE33B | Competitive Footall | PE33B | Competitive Footall |
| PE33C | Off-Season Conditioning for Foothall | PE33C | Off-Season Conditioning for Footalll |
| PE34 | Theory of Golf | PE34 | Theory of Golf |
| PE34 | Compeitive Golf | PE34 | Compeitive Golf |
| PE340 | Off-Season Conditioning for Golf | PE340 | Off-Season Conditioning for Golf |
| PE35B | Pep and Cheer | PE35 | Pep and Cheer |
| PE37A | Theory of Softball | PE37A | Theory of Sotball |
| PE37B | Compeitive Softball | PE37B | Competitive Softball |
| PE37C | Off-Sesaon Conditioning for Softall | PE370 | Off-Season Conditioning for Softhall |
| PE38A | Theory of Tennis | PE38A | Theory of Tennis |
| PE38 | Competitive Tennis | PE38 | Competitive Tennis |
| PE38C | Off-Season Conditioning for Tennis | PE380 | Off-Sesson Conditioning for Tennis |
| PE 39A | Theory of Track \& Field | PE39A | Theory of Track \& Field |
| PE 398 | Competitive Track \& Fiedd | PE 308 | Compeitive Track \& Fiedd |
| PE30 | Off-Seson Conditioning for Tradk\& Fied | PE30 | Off-Season Conditioning for Track \& Field |
| PE 40A | Theory of Volleyball | PE 40A | Theory of Vollestall |
| PE 40B | Compeititre Collebtall | PE 40B | Competitive OVleghall |
| PE 40C | Off:Sesson Conditioning for Volleyball | PE 400 | Off-Sesson Conditioning for Volleyball |
| PE62 | Introduction to Kinesiology | PE 22 | Introduction to Phsical Education |
| PHILIA | Theories of Knowledge and Reality | PHILI 1 | Introduction to Philosophy |
| PHILIC | Ethics | PHILIC | Ethics |
| PHILIC | Ethics | PHILI 1CH | Honos Ethics |
| PHILI 1D | World Religions | PHILI 1D | World Religions |
| PHILI 4 | Critical Ressoning | PHILI 4 | Critical Ressoning |
| PHILL 6 | Introduction to Logic | PHILL 6 | Introduction to Logic |
| PHOT0 5 | Introduction to Photography | PHoT0 1 | Basics of Photography |
| PHFY 2 A | Ceneral Physics 1 | PHYS 2A | General Physics 1 |
| PHYS 2B | Ceneral Physics 2 | PHIS 2B | Ceneral Physics 2 |
| PHYS 4 A | Physics for Scientists Engineers | PHIS 4 A | Physic for Scientists \& Engineers |
| PHYY 4B | Physics for Scientists Engineers | PHYS 4B | Physics for Scientists Engineers |
| PHYS 40 | Phyics for Scientists \& Engineers | PHYS $4 C$ | Physics for Scientists Engineers |
| POISCI 2 | American Goverrment | POISCI 2 | American Goverrment |
| POLSCI 2 H | Honors American Goverrmment | POLSCI2H | Honoss American Goverrmment |
| POISC15 | Comparative Government | POLSCL5 | Comparative Goverrmment |
| PSY2 | General Psychology | PSY2 | General Psychology |
| PSY 2H | Honos Seneral Psychology | PSY 2 H | Honors Ceneral Pschiology |
| PSY5 | Social Psychology | PSY5 | Social Psychology |
| PSY/CHDEV 12 | Child Abuse | CHDEV 12 | Child Abuse |
| PSY 16 | Abnormal Psychology | PSY 16 | Abnormal Psychology |
| PSY 25 | Human Sexulality | PSY 25 | Human Sexulality |
| PSY/CHDEV 38 | Lifespan Derelopment | PSY/CHDEV3 | Lifespan Derelopment |
| 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 | RE142 | Legal Aspects of Real Estate |
| :---: | :---: | :---: | :---: |
| RE 43 | Real Estae Appraisal I | RE 143 | Real Estate Appraisal |
| RN33 | Transculture Health Care | RNV78 | Profesional Nursing Realionships \& Culture |
| SOC 1 A | Introduction to Sciology | SOC 1 A | Introduction to Sociology |
| SOC2 | American Vinoorit Groups | SOC2 | American Minoity Groups |
| SOC 32 | Courtship, Marriage, Divorce: Family \& Interpersonal Relationships | SOC32 | Courtship, Marriage, Divocre: Family \& Interenesonal Reationships |
| SPAN 1 | Beģining Spanish | SPAV 1 | Beginning Spanish |
| SPAN2 | High Beginining Spanish | SPAV2 | High Beginning Spanish |
| SPAN3 | Intermediaite Spanish | SPAl 3 | Intermediate Spanish |
| SPAN 3 IS | Spanish for Spanish Speakers | SPAISIS | Spanish for Spanish Speakers |
| SPAN 4 | High Intermediate Spanish | SPAV 4 | High Intermediate Spanish |
| SPANANS | Spanish for Spanish Speakers | SPAVAIS | Spanish for Spanish Speakers |
| SPEECH | Introduction to Public Speking | SPEECH 1 | Introduction to Public Speaking |
| SPEECH2 | Interesesonal Communications | Speech 2 | Intepersonal Communications |
| SPEECH8 | Group Communication | SPPECH8 | Group Communication |
| Speech 120 | 2 Fundamental of Intepretation | SPEECH 12 | Fundamental of Interpretation |
| SPPECH 25 | Argumentation | Speech 25 | Argumentation |
| ST300 | Superised ITtoring | INTDS 300 | Academic Learning Center |
| WKEXP 19 | Work Experience (Cooperatire), Ceneral | COTR 19G | Cooperative Work Experience, Education |

## COURSES

## ACCOUNTING (ACCTG)

## 4A FINANCIAL ACCOUNTING

## 4 units, 4 lecture hours, 1 lab hour

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended. Enrolled or previously completed Computer Information Technology 12 or 15.

Explores what financial accounting is, why it is important, and how it is used by investors and creditors to make decisions. Covers the accounting information system and the recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted accounting principles, the classified financial statements, and statement analysis. Includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls and ethics. (CAN BUS 2) (TCSU BUS 110) (A, CSU, UC)

## 4AH HONORS FINANCIAL ACCOUNTING

## 4 units, 4 lecture hours, 1 lab hour

PREREQUISITE: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended. Enrolled or previously completed Computer Information Technology 12 or 15. Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

Explores what financial accounting is, why it is important, and how it is used by investors and creditors to make decisions. Covers the accounting information system and the recording and reporting of business transactions
with a focus on the accounting cycle, the application of generally accepted accounting principles, the classified financial statements, and statement analysis. Includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls and ethics. Honors program will require additional analysis of subject material involving research and presentations. (TCSU BUS 110) (A, CSU)

## 4B MANAGERIAL ACCOUNTING

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A.
Examination of how managers use accounting information in decisionmaking, planning, directing operations, and controlling. Focus on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Examination of profit planning, standard costs, operations, and capital budgeting, cost control, and accounting for costs in manufacturing organizations. (CAN BUS 4) (TCSU BUS 120) (A, CSU, UC)

## 4BH HONORS MANAGERIAL ACCOUNTING

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A or 4AH. ADVISORY: Meet the requirements for consideration for acceptance into the Honors Program. See Honors Program listing in the college catalog.

Examination of how managers use accounting information in decisionmaking, planning, directing operations, and controlling. Focus on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Examination of profit planning, standard costs, operations and capital budgeting, cost control, and accounting for costs in manufacturing organizations. Honors program will require additional analysis of subject material involving research and presentations. (A, CSU)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL 1-8 units, (Repeats = 2)

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

## 32A COMPUTERIZED ACCOUNTING

1 unit, 1 lecture hour, . 5 lab hours, (Formerly
Accounting 31 and 32)
PREREQUISITE: Accounting 4A or Business \& Technology 131. ADVISORY: Computer Information Technology 15, or equivalent, and eligibility for English 125 and 126 or English as a Second Language 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 Integrated Accounting Software. (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

3 units, 3 lecture hours, 1 lab hour, (Formerly
Accounting 51 and 151)
PREREQUISITE: Accounting 4A. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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)

## 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 4 A 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)

## 57 GOVERNMENTAL ACCOUNTING

3 units, 3 lecture hours
PREREQUISITE: Accounting 4 A or Business \& Technology 131.
An examination of the accounting processes used within municipal county, state, and federal governments. Includes budgetary control, types of funds, and interpretation of reports. (A, CSU)

## 58 ACCOUNTING PRACTICUM I

1 unit, . 5 lecture hours, 1 lab hour
PREREQUISTE: Accounting 4A or Business \& Technology 131.
Designed to help students have greater understanding of the basic accounting process through the use of assigned practical, real-world accounting problems (also called practice sets). (A, CSU)

## 59 ACCOUNTING PRACTICUM II

1 unit, .5 lecture hours, 1 lab hour PREREQUISITE: Accounting 51.
Designed to help students have optimal understanding of the accounting process through the use of advanced practical, real-world accounting problems (also called practice sets). (A, CSU)

## 70 QUICKBOOKS FUNDAMENTALS

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

## 73 MAS90 FUNDAMENTALS

2 units, 2 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4 A 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)

## 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.

## 270 ACCOUNTING MATH SKILLS

1 unit, 1 lecture hour, (Formerly Decision Science 70 and 270)
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.

## ADMINISTRATION OF JUSTICE SEE CRIMINOLOGY

## ADMINISTRATION OF JUSTICE (AJ) POLICE ACADEMY

## 200 INTERVIEW AND INTERROGATION TECHNIQUES

.5-1 unit, 17-25.5 lecture hours, (1 week), (Pass/
No Pass), (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), (Pass/No Pass), (Repeats = 3), (Formerly
Administration of Justice 101)
PREREQUISITE: Sworn peace officers or reserve officers with a letter of recommendation from their departments, or Administration of Justice 270 and those who have registered under United States Code Title 26 Section 5841 for the possession of explosive devices.

Familiarization of explosives including military, civilian, improvised, and booby traps. Materials fee will be charged.

## 202 ETHICAL DILEMMAS IN PUBLIC SAFETY AGENCIES

.2 units, 8.5 lecture hours, (1 week), (Pass/No Pass), (Repeats = 3), (Formerly Administration of Justice 102)

PREREQUISITE: None.
Designed to foster discussion about individual values, ethics, integrity, principles and standards as they relate to law enforcement and professionalism, and how they relate to daily decision-making in the workplace. Materials fee will be charged.

## 203 CUSTOMER SERVICE TRAINING FOR LAW ENFORCEMENT

.2 units, 8.5 lecture hours, (1 week), (Pass/No Pass),
(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), (Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No
Pass), (Repeats $=3$ ), (Formerly Administration of
Justice 107)
PREREQUIITTE: 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), (Pass/No Pass), (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),
(Pass/No Pass), (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),
(Pass/No Pass), (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),
(Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (Unlimited Repeats), (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), (Pass/No
Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (Repeats = 3)
PREREQUISITE: Sworn peace officer or Administration of Justice 270.

Proper operation of police radar devices including history of radar operation, principles of operation and laws relevant to radar operation.

## 221 EXPLOSIVE RECOGNITION FOR FIRST RESPONDERS

0.5 units, 8.4 lecture hours, 8.4 lab hours, ( 1 week),
(Pass/No Pass), (Repeats $=3$ )
PREREQUISITE: Administration of Justice 270 or sworn full-time peace officer:

Basic techniques and procedures for explosives recognition for the first responder. Materials and range fee will be charged.

## 230 FORCE OPTION SIMULATOR

0.1 unit, 2.1 lecture hours, 2.1 lab hours, ( 1 week),
(Pass/No Pass), (Unlimited repeats)
PREREQUISITE: Administration of Justice 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), (Pass/No Pass), (Unlimited repeats)
PREREQUISITE: Administration of Justice 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), (Pass/No Pass), (Unlimited repeats)
PREREQUISITE: Sworn peace officer or Administration of Justice 270.

Defensive driving review and emergency vehicle operation principles through the use of a driving simulator. Dangerous driving scenarios in a controlled training environment.

## 268 PRE-POLICE ACADEMY PHYSICAL CONDITIONING

0.5 units, .5 lecture hours, 3.5 lab hours, (10 weeks), (Pass/No Pass), (Repeats = 3)
PREREQUISITE: Physical exam, including an electrocardiogram (EKG) printout.

Expose future FCC Police Academy students to the physical demands, bringing them to a higher level of physical conditioning, as well as the disciplined and structured environment of the Police Academy.

## 269 ADVANCED OFFICER TOPICS

0.1-0.5 units, 1-25.2 lecture hours, 1-25.2 lab hours, (1 week), (Pass/No Pass), (Unlimited Repeats)
PREREQUISITE: Administration of Justice 270 or sworn full-time peace officer.

Satisfies mandatory yearly requirements of the California Commission on Peace Officer Standards and Training (POST) for advanced officer training. May be offered in seminar, lecture, and/or laboratory format. Examination of topics, current trends, and/or issues as mandated by POST and not covered by regular catalog offerings. Course content to be determined by POST.

## 269A ADVANCED OFFICER TOPICS \#2

0.5-2 units, 1-82 lecture hours, 1-82 lab hours, (1-18 weeks), (Pass/No Pass), (Unlimited Repeats)
PREREQUISITE: Administration of Justice 270 or currently employed by a public safety agency.

Satisfies mandatory yearly requirements of the California Commission on Peace Officer Standards and Training (POST) or Standards for Training in Corrections (STC) for advanced officer training. May be offered in seminar, lecture, and/or laboratory format. Examination of topics, current trends, and/ or issues as mandated by POST or STC and not covered by regular catalog offerings. Course content to be determined by POST or STC.

## 270 BASIC POLICE ACADEMY

30 units, 15.8-24.9 lecture hours, 12.6-19.2 lab hours, (25-40 weeks), (Pass/No Pass), (Repeats = 3), (Formerly Administration of Justice 70)
PREREQUSITIE: 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.

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. 8323 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.

## 271APC 832 (INTENSIVE FORMAT)

0.5-1.5 units, 6-27 lecture hours, 6.6 lab hours, (2 weeks), (Pass/No Pass), (Repeats = 3)
PREREQUISITE: Must be able to demonstrate physical ability to use a firearm and to perform arrest and control techniques in a safe manner. 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.

## 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 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 271,272 and 273.
Satisfies mandatory requirements for Level 1 Reserve Police Officer:

## 275 ADVANCED OFFICER ACADEMY

.5-1 unit, 25.5-42 lecture hours, (1 week), (Pass/No Pass), (Unlimited Repeats), (Formerly Administration of Justice 72 and 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 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 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), (Pass/No Pass), (Repeats = 3), (Formerly
Administration of Justice 89 and 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), (Pass/
No Pass), $($ 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.

## 279ACITIZENS ON PATROL

0.5 units, 4 lecture hours, 2.4 lab hours, ( 5 weeks), (Pass/No Pass)
PREREQUISITE: None.
Introduction/orientation to the mission, policies, and procedures of a law enforcement department. Prepares students for service as a department volunteer.

## 280 ADULT CORRECTIONAL OFFICER CORE

4-6 units, 26.3-42 lecture hours, ( 5 weeks), (Repeats
$=3)$, (Formerly Administration of Justice 74 and 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), (Pass/No Pass), $($ Repeats $=3)$, (Formerly Administration of Justice 75 and 81)
PREREQUISITE: Administration of Justice 270 or 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), (Pass/No Pass), (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), (Pass/No Pass), (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), (Pass/No Pass), (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),
(Pass/No Pass), (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),
(Pass/No Pass), (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),
(Pass/No Pass), (Repeats = 3), (Formerly
Administration of Justice 88 and 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), (Pass/ No Pass), (Repeats = 3), (Formerly Administration of Justice 84 and 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.

## 294 OFFICER SAFETY

.5-1 unit, 9.5-18 lecture hours, 16-24 lab hours, (1 week), (Pass/No Pass), (Repeats = 3), (Formerly Administration of Justice 83 and 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), (Pass/No Pass), (Repeats $=3$ ), (Formerly Administration of Justice 81 and 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.

## 184 Administration of Justice

## 296 HOMICIDE INVESTIGATION

1-2 units, 42-84 lecture hours, (2 weeks), (Pass/
No Pass), (Repeats = 3), (Formerly Administration of Justice 82 and 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), (Pass/No Pass), (Repeats = 3), (Formerly
Administration of Justice 76 and 97)
PREREQUISITE: Administration of Justice 270 or sworn peace officer or reserve officer.

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), (Pass/ No Pass), (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), (Pass/No Pass), (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)

## 2 A THE EVOLUTION OF USAF AIR AND SPACE POWER

 1 unit, 1 lecture hour PREREQUISITE: None.Factors contributing to the development of air power from its earliest beginnings through the present conflicts in Afghanistan and Iraq; the evolution of air power concepts and doctrine; and an assessment of communications skills. (A, CSU, UC)

## 2B THE EVOLUTION OF USAF AIR AND SPACE POWER

1 unit, 1 lecture hour
PREREQUISITE: None.
Factors contributing to the development of air power from its earliest beginnings through the present conflicts in Afghanistan and Iraq; the evolution of air power concepts and doctrine; and an assessment of communications skills. (A, CSU, UC)

## 3 LEADERSHIP LABORATORY <br> 1 unit, 3 lab hours, (Pass/No Pass), (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.

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 as a Second Language 67 and 68 recommended.

The African-American in American society: an interdisciplinary approach using anthropology, history, sociology, literature, art, and music. (TCSU AFAM 119) (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 as a Second Language 67 and 68 recommended.

The African-American cultural system: problems and conflicts with the dominant culture. (TCSU AFAM 219) (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 as a Second Language 67 and 68 recommended.

The creative products of Black people in Africa and America: painting, architecture, sculpture, drawing and printing. (TCSU AFAM 119) (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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

A creative multi-discipline workshop based on the history and culture of the African-American. (TCSU AFAM 119) (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 as a Second Language 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. (TCSU AFAM 119) (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 as a Second Language 67 and 68 recommended.

African-American music from 1940 to the present. (TCSU AFAM 119)
(A, CSU-GE, UC, I)

## 17 AFRICAN-AMERICAN LITERATURE

3 units, 3 lecture hours, (See also English 17)
PREREQUISITE: English 1A or equivalent.
Reading critical works of African and African-American writers and understanding their cultural values and themes as expressed in essays, short stories, novels, poetry, and plays. (TCSU AFAM 119) (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 as a Second Language 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, I)

## 22 HIGH-BEGINNING SWAHILI

4 units, 3 lecture hours, 2 lab hours, (See also Swahili 2)

PREREQUISITE: Swahili 1/African-American Studies 21, or two years of high school Swahili, or equivalent.

Second Semester Swahili: listening, speaking, grammar, reading, writing, comprehension, and vocabulary. (A, CSU-GE, UC, I)

## 36 CONTEMPORARY AFRICA

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An analysis of Africa's struggle for political independence, economic development, cultural identity, and the democratic process. (A, CSU, UC)

## 41 THE AFRICAN-AMERICAN WOMAN

3 units, 3 lecture hours, (See also Women's Studies
41), (Formerly Cultural Studies 41)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Examination of the roles and status of African-American women within the larger U.S. social structure. Diversified roles of women in Africa from antiquity through the period of slavery and colonization, including contemporary issues among African-American women and the impact African-American women have had on the U.S. and the world. (A, CSU, 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 24 recommended.

African-American experience through musical theory and performance: gospel and spiritual. (A, CSU-GE, UC)

## AIR CONDITIONING (Ac)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-8 units, (Repeats $=2$ )
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 8 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: Applied Technology 10, eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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

7 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVISORY: Applied Technology 10, eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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

7 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVISORY: Air Conditioning 50, 51, 53, Applied Technology 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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

7 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVISORY: Air Conditioning 50 or concurrent enrollment, Applied Technology 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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

7 units, 5 lecture hours, 5 lab hours, (Repeats $=3$ )
ADVISORY: Air Conditioning 50, 51, 53, Applied Technology 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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)

## 55 TECHNICIAN TESTING AND CERTIFICATION

1 unit, 2 lecture hours, ( 9 weeks), (Repeats $=3$ )
ADVISORY: Air Conditioning 50,51,52,53,54,56, and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended. Air Conditioning 53, 54 and 56 may be taken concurrently.

Prepares students/technicians for specific HVAC industry competency, licensing, and certification examinations. Those exams may include, but
are not necessarily limited to, EPA Section 608 (proper refrigerant handling techniques), R-410A safety certification, Air-Conditioning and Refrigeration Institute's (ARI) Industry Competency Exam(s) (ICE) and North American Technician Excellence (NATE) Installation/Service Technician Certification(s). Substantial out-of-class study will be required to prepare for each exam. The exams are an integral part of the course and will be conducted by an approved proctor for each organization. In addition to normal registration fees, all test fees imposed by competency, licensing and certifying organizations are the responsibility of the student. (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 as a Second Language 67 and 68 and Mathematics 101 or Applied Technology 130 recommended.

Layout, design, installation and testing of duct systems. Basic sheet metal fabrication, soldering and spot welding. Estimating and bidding projects. (A, CSU)

## 57 SYSTEM CONFIGURATION AND CONTROL

2 units, 2 lecture hours, (Repeats $=3$ )
ADVISORY: Applied Technology 10, eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended.

Uses energy management software to identify air conditioning system configurations and control strategies. (A, CSU)

## 60A FUNDAMENTALS OF REFRIGERATION

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Applied Technology 10, eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 or Applied Technology 130 recommended.

The physics of mechanical refrigeration, temperature pressure relationships, system components and principles of operation. (A, CSU)

## 250 DIGITAL UNITARY CONTROLS

2 units, 2 lecture hours, 1 lab hour, (Repeats = 3)
ADVISORY: Applied Technology 10, Air Conditioning 57, eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended.

Principles and application of unitary digital controls.

## 251 DIGITAL VAV CONTROLS

1 unit, .75 lecture hours, .75 lab hours, (Repeats $=3$ )
ADVISORY: Applied Technology 10, Air Conditioning 57, eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended. Principles and application of digital variable air volume controls.

## 252 DDC NETWORK CONTROLLERS

2 units, 2 lecture hours, 1 lab hour, (Repeats = 3)
ADVISORY: Applied Technology 10, eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended.

Principles and application of network controllers.

## 260B ELECTRICITY FOR AIR CONDITIONING

3 units, 3 lecture hours, (Repeats = 3), (Formerly Air Conditioning 60B)
ADVISORY: Applied Technology 10, eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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: Air Conditioning 260B, Applied Technology 10, eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 or Applied Technology 130 recommended.

Principles of combustion, furnace controls and system diagnosis. Properties of air, measurements and analysis.

## 260D TROUBLESHOOTING PROCEDURES

2 units, 2 lecture hours, 1 lab hour, (Repeats = 3), (Formerly Air Conditioning 60D)
ADVISORY: Air Conditioning 60A, 260B, Applied Technology 10, and eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 or Applied Technology 130 or equivalent recommended.

Troubleshooting and analysis of air, electrical and refrigeration systems using computer simulations. Introduction to residential duct system design and airflow measurement.

## 353 PRINCIPLES OF INDUSTRIAL REFRIGERATION

0 units, 3 lecture hours, (Pass/No Pass)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 or Applied Technology 130 recommended.

Principles of Ammonia based Industrial Refrigeration Systems with emphasis on standards for Refrigeration Engineers \& Technicians Association (RETA) "Certified Assistant Refrigeration Operator" (CARO) and EPA-section 608 certification.

## AMERICAN INDIAN STUDIES (AMIND)

 formerly native american studies
## 31 AMERICAN INDIAN CULTURE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. (TCSU NAS 109) (A, CSU-GE, UC I)

## 32 AMERICAN INDIAN HISTORY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The history of the American Indian nations from antiquity to the mid20 th century, with an emphasis on pre-Columbian life, the European invading 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 as a Second Language 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 as a Second Language 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. (TCSU NAS 109) (A, CSU-GE, UC, I)

## 35 AMERICAN INDIAN ART

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 <br> GROUND IN A MULTICULTURAL SOCIETY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Multidisciplinary examination of racial and ethnic identity in a multicultural society, the roots of prejudice and of religious and ethnic animosities, with special emphasis on what forces unite as well as divide this country. (A, CSU-GE, UC, I)

## ANTHROPOLOGY (Anthro)

## 1 BIOLOGICAL ANTHROPOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 social institutions including religion and ideology, political organization and social control, economics, subsistence and ecological adaptation, marriage and family, child rearing, personality development, kinship, 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 social institutions including religion and ideology, political organization and social control, economics, subsistence
and ecological adaptation, marriage and family, child rearing, personality development, kinship, language, artistic expression, and cultural change. In addition, the Honors course takes a greater cross-disciplinary perspective, places greater emphasis on the use of anthropology on the understanding of the modern world, and more critically evaluates the methods and theory of anthropology. (CAN ANTH 4) (A, CSU-GE, UC, I)

## 3 INTRODUCTION TO ARCHAEOLOGY AND PREHISTORY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The evolution of human culture from the first use of stone tools to the rise of civilization as understood through the archaeological record. Also includes discussion of the methods of archaeological field work and analysis, the history and interdisciplinary nature of archaeological research. (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 as a Second Language 67 and 68, and Mathematics 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, UC)

## 5 ANALYTICAL METHODS IN ARCHAEOLOGY

4 units, 3 lecture hours, 3 lab hours, (Repeats = 1)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

The archaeological laboratory and its relationship to archaeological project development and organization; artifact identification, analysis, and cataloging processes including lithic, ceramic, bone, shell, fiber, and historic artifact types. (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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A cross-cultural study of the forms and functions of supernatural beliefs and associated rituals primarily in nonwestern cultures. (A, CSU, UC)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

 1-8 units, (Repeats = 2)COREQUISITE: Fall and Spring Semesters: Must be enrolled in a minimum of 7 units, including the 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 8 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 20 NATIVE PEOPLES OF CALIFORNIA

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The ethnohistory, linguistics, spiritual beliefs, political organization, subsistence patterns, gender, arts, oral history, social issues, images and cultures of the indigenous peoples of California. Conflict with various colonial forces, contemporary issues, and the relationship between indigenous peoples and anthropology. (A, CSU, UC)

## 27 ARCHAEOLOGICAL RECONNAISSANCE

1 units, 2 lecture hour, 4 field lab hours, ( 6 weeks), (Repeats = 2)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Locating, assessing, and recording archaeological sites. Includes technical report writing; environmental, ethnological, and archaeological research; and compass use and topographical map reading. (A, CSU)

## 28 ANCIENT MEXICO: AN INTRODUCTION TO MESO-

 AMERICAN CIVILIZATIONS AND CULTURES3 units, 3 lecture hours, (See also Chicano-Latino Studies 28)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 67 and 68, and Mathematics 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)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 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, UC approved as variable topics; evaluation completed by individual campuses after admission.)

## APPLIED TECHNOLOGY (AT)

## 10 TECHNICAL COMPUTER APPLICATIONS

2 units, 1 lecture hour, 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. Fulfills the computer literacy graduation requirement. (A, CSU)

## 11 BASIC ELECTRICITY

3 units, 3 lecture hours, (Formerly Industrial Education 11)
PREREQUISITE: None.
Fundamental concepts of electricity and its applications. Lecture/ demonstration. (A, CSU)

## 21 OCCUPATIONAL SAFETY AND HEALTH

2 units, 2 lecture hours, (Formerly Industrial Education 36)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended

Employer and employee responsibility, federal and state legislation, accident reports, industrial hygiene, personal protective equipment, materials handling and storage, hazard communication, guarding machines and mechanisms, hand and portable power tools, electrical safety, and fire protection. (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 as a Second Language 67 and 68 recommended.

Preparing resumes, portfolios, and improving employment seeking skills. (A, CSU)

## 120 INDUSTRIAL SCIENCE

3 units, 3 lecture hours, (Formerly Industrial Education 51)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 or Applied Technology 130 recommended.

Force, work, rate, resistance, energy, power, force transformers, energy converters, and transducers in the mechanical, fluid, electrical, and thermal systems. Applications to the trades. (A)

## 130 INDUSTRIAL MATHEMATICS

3 units, 3 lecture hours, (Formerly Industrial Education 60)
PREREQUISITE: Mathematics 260C or 250 or designated math score. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 131 TECHNICAL REPORT WRITING

3 units, 3 lecture hours, (Formerly Drafting 43)
PREREQUISITE: English 252, English as a Second Language 265W, or designated score on English placement test.

Content, organization, style, and format. Business correspondence, tables and figures. (A)

## 212 COMPUTER SKILLS LAB

1 unit, 3 lab hours, (Repeats = 3) (Formerly Industrial Education 50)
PREREQUISITE: None.
Supervised use of computers. Reinforcement of concepts from classroom studies. Problem-solving skills. Grade based on hours worked in lab.

## APPRENTICESHIP TRAINING (APP)

Apprenticeship training courses are designed for those currently employed and indentured in the specific trade.

For specific apprenticeship training program requirements refer to the Associate Degree and Certificate Programs section of this catalog.

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-8 units, (Repeats $=2$ )
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 8 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 <br> Courses required for this apprenticeship program are listed on page 109.

## AUTOMOTIVE MECHANICS

Courses required for this apprenticeship program are listed on page 109.

## BODY AND FENDER

Courses required for this apprenticeship program are listed on page 109.

## COOK

Courses required for this apprenticeship program are listed on page 110

## DIESEL AND HEAVY-DUTY MECHANICS

Courses required for this apprenticeship program are listed on page 110.

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

0 units, 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. Heary-duty diesel accessories, and electrical systems.

## ELECTRONICS

Courses required for this apprenticeship program are listed on page 110.

## MACHINE SHOP

Courses required for this apprenticeship program are listed on page 111.

## PARTS CLERK

Courses required for this apprenticeship program are listed on page 111.

## R00FING

Courses required for this apprenticeship program are listed on page 111.

## 361/6J ROOFING

0 units, 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 112.

## WELDING

Courses required for this apprenticeship program are listed on page 112.

## ARCHITECTURE (ARCH)

## 10 ARCHITECTURAL DESIGN AND VISUALIZATION I

3 units, 2 lecture hours, 2 lab hours
ADVISORY: Architecture 14 concurrently strongly recommended for architecture majors. Eligibility for English 125 and 126 or ESL 67 and 68 recommended...

Basic principles and concepts of design while concurrently addressing the skills of freehand drawing, manual drafting and visualization. History and development of perspective during the Renaissance. (A, CSU-GE, UC)

## 11 INTRODUCTION TO ARCHITECTURE AND ENVIRONMENTAL DESIGN

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Familiarization with the professional fields of architecture, landscape architecture, structural engineering, city planning and construction. Roles of the architect and the project team. Introduction to design principles and elements. Phases of the construction project. Licensing requirements. Visiting Lecturers. (A, CSU-GE, UC)

## 12 ARCHITECTURAL PRACTICE I

3 units, 2 lecture hours, 3 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Methods of construction and drafting practices as applied to architectural contract documents concerning plans and details for light wood frame structures. Use and application of building codes and reference material. Site contours and grading. Field trips may be required. (A, CSU)

## 14 DIGITAL TOOLS FOR ARCHITECTS

3 units, 2 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Digital tools in the context of architectural practice. Basic 3D modeling and image manipulation. Presentation layout and output. (A, CSU)

## 20 ARCHITECTURAL DESIGN AND VISUALIZATION II

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 10 and 14.
Continuation of Architecture 10. Extended development of the content of Architecture 10 plus the introduction of color theory. Principles and means for the creation of two dimensional and three dimensional organizations. (A, CSU-GE, UC)

## 21 MATERIALS OF CONSTRUCTION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Materials used in the construction of buildings; their applications and limitations. Construction systems and processes. Field trips may be required. (A, CSU)

## 22 ARCHITECTURAL PRACTICE II

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 12 and Computer Aided Drafting and Design 14.

Continuation of Architecture 12. Further development of drafting practices and contract documents. Emphasis on light commercial materials and construction. Computer-aided drafting in commercial architectural applications. (A, CSU)

## 24 ARCHITECTURAL CAD I

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Architecture 14. ADVSORY: Computer Aided Drafting and Design 14.

Continuation of Arch 14 . Further development of CAD and 3D modeling for architectural drawing and presentation. Architectural plans, dimensions, blocks, and wblocks. Use of components, materials and tileable patterns. Modeling of terrain, slopes and meshes. (A, CSU)

## 30 ARCHITECTURAL DESIGN AND VISUALIZATION III

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 20.
Continuation of Architecture 20. Extended development of the content of Architecture 20 plus the introduction of site and climate. Analysis and organizational concepts. Light and function as issues in architecture. (A, CSU-GE, UC)

## 31 BUILDING CODES

3 units, 3 lecture hours, (Repeats = 3), (See also
Building Safety and Code Administration 10),
(Formerly Architecture 24)
PREREQUISITE: None.
International building codes and local building zoning ordinances. (A, CSU)

## 32 STATICS AND STRENGTH OF MATERIALS

3 units, 3 lecture hours, (Formerly Architecture 31)
ADVISORY: Eligibility for Mathematics 101 recommended.
Static force systems, trusses, shear, moment, and deflection. Physical properties of materials, shear and moment diagrams, and sizing of structural members. (A, CSU)

## 34 ARCHITECTURAL CAD II

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Architecture 24.
Continuation of Architecture 24. Further development of CAD and 3D modeling for architectural drawing and presentation. Includes basic template setup, detail libraries and office standards. Create 3d model from photo and animated walk-through. (A, CSU)

## 40 ARCHITECTURAL DESIGN AND VISUALIZATION IV

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Architecture 30.
Continuation of Architecture 30 . Extended development of the content of Architecture 30 with emphasis on the design process. Projects of an architectonic nature will be completed. Development of an educational portfolio. (A, CSU)

## 41A OFFICE PRACTICES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 125 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

Contracts, specifications, scheduling, estimating and bid practices and procedures as they relate to architectural practice. (A, CSU)

## 42 TIMBER AND STEEL STRUCTURES

3 units, 2 lecture hours, 2 lab hours, (Formerly Architecture 32)
PREREQUISITE: Architecture 32.
Calculation and design of timber and steel structures. Engineering of connections. Completion of structural framing plans. (A, CSU)

## 44 ARCHITECTURE COMPUTER RENDERING

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Architecture 34.
Application of Architecture 14, 24, and 34. Terminal course in the architectural CAD/presentation sequence. Student will complete a comprehensive, individual project of their own interest (upon approval of instructor). Design and completion of an educational portfolio, digital and printed. (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 as a Second Language 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 as a Second Language 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 as a Second Language 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. (CAN ART 2) (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. (CAN ART 4) (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 as a Second Language 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)

## 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68, and Mathematics 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 12)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 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-GE)

## 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 as a Second Language 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 as a Second Language 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, 9, and eligibility for English 125 and 126 or English as a Second Language 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 portfolio of past oil/acrylic painting work.

A further exploration of the creative act of painting using representational, abstract, and non-objective forms. Emphasis on oil/acrylic media. (A, CSU, UC)

## 20 INTERMEDIATE CERAMICS

3 units, 2 lecture hours, 4 lab hours, (Repeats = 3), (Formerly Art 11B)
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 as a Second Language 67 and 68 and Mathematics 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 = 2),
(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. Students will be focusing on 2-3 of the above media and begin developing intermediate skills in their use. (A, CSU, UC)

## 22A TEXTILE DESIGN: HAND PAPERMAKING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3$ ), (Formerly Art 49 and 22)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Exploration of the historical and cultural sources related to basic processes and materials used by the studio artist to make paper by hand. Development of personal visual ideas through fibers and handmade paper based on the study of both traditional and contemporary paper ideas. (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 as a Second Language 67 and 68 recommended.

Introduction to basic textile structures to include: discussion of both the historical as well as contemporary cultural contexts for 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 will be explored. (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 $=3$ )
PREREQUISITE: Art 14 or demonstration of comparable skill level to be determined by testing and/or portfolio of past printmaking work.

Intermediate-level relief printmaking processes, including experimentation with techniques in monotype, viscosity, woodblock, linoleum block, found object, and relief roll techniques of relief processes. (A, CSU, UC)

## 24D SCREENPRINTING

3 units, 2 lecture hours, 4 lab hours, (Repeats $=3)$ PREREQUISITE: Art 14 or demonstration of comparable skill level to be determined by testing and/or portfolio of past printmaking work. Intermediate-level screenprinting processes, including experimentation in twelve techniques in photo, drawing, reductive screenprinting, multicolor on textiles, and cut film. (A, CSU, 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 as a Second Language 67 and 68 , and Mathematics 101 recommended.

An exploration of the aesthetic and practical applications of mural painting, including historical background, planning, techniques and execution. (A, CSU, UC)

## 27 ADVANCED DRAWING

3 units, 2 lecture hours, 4 lab hours
PREREQUISITE: Art 17 or demonstration of comparable skill level to be determined by testing and/or portfolio of past drawing work.

Drawing as a process to investigate ideas. (A, CSU, UC)

## 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, UC)

## 29 ADVANCED PAINTING: OIL/ACRYLIC

3 units, 2 lecture hours, 4 lab hours, $($ Repeats $=3)$
PREREQUISITE: Art 19 or demonstration of comparable skill level to be determined by testing and/or portfolio of past oil/acrylic painting work. ADVISORY: Eligibility for Mathematics 101 recommended.

Advanced studies in the creative act of painting. Emphasis on oil/acrylic media. (A, CSU, UC)

## 31 ADVANCED SCULPTURE

3 units, 2 lecture hours, 4 lab hours, $($ Repeats $=3)$
PREREQUISITE: Art 21 or demonstration of comparable skill level to be determined by testing and/or portfolio of past sculpture work.

Development of a portfolio of sculptural work through concentrated advanced 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)

## 32A BEGINNING JEWELRY AND METALSMITHING

3 units, 2 lecture hours, 4 lab hours
ADVISORY: Eligibility for Mathematics 101, and English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduction to the history of jewelry-making as well as the cultural expressiveness associated with its traditions and contemporary applications. Introduction to a wide-range of methods, techniques, and materials used to create small metal objects and jewelry. The formation and construction of functional and non-functional objects will be explored. (A, CSU)

## 32B INTERMEDIATE JEWELRY AND METALSMITHING

3 units, 2 lecture hours, 4 lab hours, ( Repeats $=3$ ) PREREQUISITE: Art 32A.
Further explorations into the history of jewelry-making as well as the cultural expressiveness associated with its traditions and contemporary applications. 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 non-functional objects will continue to be explored. (A, CSU)

## 35 COLOR THEORY

3 units, 2 lecture hours, 4 lab hours, (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. (CAN ART 22) (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 as a Second Language 67 and 68 and Mathematics 101 recommended.

Creative thinking and concept development within the graphic design process. (A, CSU).

## 40B ADVANCED GRAPHIC DESIGN

2 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 as a Second Language 67 and 68 and Mathematics 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 as a Second Language 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, (Repeats $=3$ ), (Formerly Art 9)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68 recommended.

Introduction to the arts of Asia, including China, Japan, India, and Southeast Asia. (A, CSU-GE, UC, I)

## 60 PRE-COLUMBIAN ART

3 units, 3 lecture hours, (See also Chicano-Latino
Studies 22)
ADVISORY; Eligibility for English 125 and 125 or English as a Second Language 67 and 68 recommended.

A historical survey of the art of Mesoamerican and Andean ancient cultures. The art and architecture of the Olmec, Toltec, Aztec, Moche, Nazca, Inca, and other ancient civilizations of the New World. (A, CSU, UC)

## 65 INTRODUCTION TO PACIFIC ART

## 3 units, 3 lecture hours

ADVISORY: Eligibility for English 125 and English 126 or English as a Second Language 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, (Pass/No Pass), (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 INDO-CHINESE AMERICANS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

History, culture, and settlement in America of the peoples of IndoChina. The Vietnamese, Cambodian, Lao, and Hmong experience. (A, CSU-GE, UC, I)

## 10 HMONG CULTURE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Explore historical and cultural background of Hmong people who have migrated into the United States of America. Examine their cultural identity, acculturation process, clan system, family dynamics, influential factors that shape their culture, and successes in America. (A, CSU, UC)

## 15 INTRODUCTION TO ASIAN-AMERICANS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Historical and cultural background of major Asian groups that have immigrated into the United States; including Chinese, Japanese, Filipinos, and Southeast Asians. Examines cultural identity, assimilation, interracial relationships, family influences, discrimination and generational conflict. (A, CSU-GE, UC)

## 20 ASIAN-AMERICAN LITERATURE

3 units, 3 lecture hours, (See also English 20)
PREREQUISITE: English 1A or the equivalent.
Survey of Asian-American classic and contemporary literature. Reading and writing critical analysis of novels, short stories, poems and plays. (A, CSU, UC)

## 25 ASIAN-AMERICAN SOCIAL ISSUES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Issues of contemporary relevance related to Asian Americans: gender inequality, media representation, workplace concerns, crime, anti-Asian violence, race relations, the changing Asian American family and community, homosexuality, issues in education, teen suicide, and political involvement. (A, CSU, UC)

## 30 ASIAN-AMERICAN WOMEN

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

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, UC)

## ASTRONOMY (ASTRO)

## 10 BASIC ASTRONOMY

3 units, 2 lecture hours, 2 lab hours, (generally
evening only)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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

9 units, 4 lecture hours, 16 lab hours, (Day Program), (Formerly Body-Fender 51/52)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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. Not open to students with credit in ACRT 51A and/or ACRT 51B. (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 as a Second Language 67 and 68 and Mathematics 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. Not open to students with credit in ACRT 51. (A, CSU)

## 51B BASIC ACR

5 units, 2 lecture hours, 8 lab hours, (Evening
Program), (Formerly Body-Fender 52)
PREREQUISITE: Automotive Collision Repair Technology 51A. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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. Not open to students with credit in ACRT 51. (A, CSU).

## 53 ADVANCED ACR

9 units, 4 lecture hours, 16 lab hours, (Day Program),
(Formerly Body-Fender 53/54)
PREREQUISITE: Automotive Technology Collision Repair 51 or Automotive Technology Collision Repair 51A and 51B. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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. Not open to students with credit in ACRT 53A and/or ACRT 53B. (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 or Automotive Collision Repair Technology 51A and 51B. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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. Not open to students with credit in ACRT 53. (A, CSU).

## 53B ADVANCED ACR

5 units, 2 lecture hours, 8 lab hours, (Evening Program), (Formerly Body-Fender 54)
PREREQUISITE: Automotive Collision Repair Technology 53A and 51 or Automotive Collision Repair Technology 51A and 51B. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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. Not open to students with credit in ACRT 53. (A, CSU)

## 55 SPRAY REFINISHING

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
(Formerly Body-Fender 55)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 <br> 5 lecture hours, 25 lab hours, ( 30 weeks), ( 900 total hours), (Repeats $=3$ ), (Formerly BFVTC 70 and ACRVTC 370) <br> 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

1-8 units, (Repeats = 2)
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 8 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 200 Automotive Technology

## 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 and 51L. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 51. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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. COREQUISITE: Automotive Technology 9.

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 LABORATORY1 unit, 8 lab hours, ( 9 weeks), (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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

1 unit, 8 lab hours, ( 9 weeks), (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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

1 unit, 8 lab hours, ( 9 weeks), (Repeats = 3)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 , and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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: Automotive Technology 52 or 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 as a Second Language 67 and 68 and Mathematics 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)

2 units, 4.5 lecture hours, 4.5 lab hours, ( 9 weeks),
(Repeats $=3$ ), (Formerly Automotive Technology 61
and 61A)
PREREQUISITE: Automotive Technology 52, 53, 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 as a Second Language 67 and 68 and Mathematics 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 0n 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 as a Second Language 67 and 68, and Mathematics 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

.5 unit, 12 lecture hours, (1 week), (Repeats = 3)
PREREQUISITE: Automotive Technology 261B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 62B) PREREQUISITE: Automotive Technology 261A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 9 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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.

## AUTOMOTIVE TECHNOLOGY: GENERAL MOTORS ASEP PROGRAM (ATGM)

## 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 Automotive Technology GM 51L. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 Automotive Technology GM 51. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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. (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 55),
(Formerly Automotive Technology General Motors 36)
COREQUISITE: Automotive Technology 9. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 <br> 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. COREQUISITE: Automotive Technology 9.

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)

## BIOLOGY (BIol)

## 1 PRINCIPLES OF BIOLOGY

4 units, 3 lecture hours, 2 lab hours
PREREQUISITE: Mathematics 103. ADVISORY: Eligibility for English 125 and English 126 or English as a Second Language 67 and 68 recommended.

Introduction to the principles and unifying concepts of life science including the chemical basis of life, cell structure and function, genetics and principles of inheritance, evolution, biological classification and diversity, and ecology. Recommended for life science and allied health majors. Fulfills prerequisite for Biology 4, 6, 7, 20, 24, and 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)
PREREQUISITE: Mathematics 103. ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Introduction to the principles and unifying concepts of life science including the chemical basis of life, cell structure and function, genetics and principles of inheritance, biological classification and diversity, and ecology, with evolution as the unifying theme. Applications of the above topics to human health and environmental issues are stressed. Field trips, guest speakers, literature and scientific research, use of technology, and student presentations are included in this honors level course. Fulfills prerequisite for Biology 4,6, 7, 20, 24, and 31. (CAN BIOL 2) (A, CSU-GE, UC, I)

## 3 INTRODUCTION TO LIFE SCIENCE

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introductory course exploring biological concepts as they relate to organismal structure and function, inheritance, ecology, and evolution. Recommended for non-biological science majors and liberal studies majors. 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, each with a grade " C " or better. Mathematics 103 or equivalent. Completion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Animal forms using the phylogenetic approach including 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 as a Second Language 67 and 68 and Mathematics 103 recommended.

An overview of the cellular, molecular, genetic, and systems basis of life with and emphasis on the human body. For allied health majors. Fulfills prerequisites for Biology 20, 24, 31. (TCSU BIOL 110) (A, CSU-GE, UC, I)

## 6 PRINCIPLES OF BOTANY

5 units, 3 lecture hours, 6 lab hours, (Formerly Botany 1)
PREREQUISITE: Biology 1 or 3 or equivalent, each with a grade " $C$ " or better. Mathematics 103 or equivalent. Completion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 3 with a grade of " C " or better, Biology 1 , or equivalent. Completion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Field investigations of plants, animals, and fungi emphasizing natural history, taxonomy, and ecology of local species. 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 as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 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)

## 9 INTRODUCTION TO BIOLOGY

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Natural Science 1A. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An integrated approach using biological principles and concepts to explore ecological processes, biotic diversity, and biological change through time. For transfer Liberal Studies Major students. (A, CSU, UC)

## 20 HUMAN ANATOMY

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Biology 1 or 5 or equivalent, each with a grade "C" or better. Completion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A foundation course in Human Anatomy. A systems-based approach, examining the gross and microscopic structures of the human body. Fulfills the anatomy requirement for many nursing and other health-related programs. (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, each with a grade "C" or better. Completion within last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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-GE, UC, I)

## 24 HUMAN ANATOMY AND PHYSIOLOGY

5 units, 4 lecture hours, 3 lab hours
PREREQUSITE: Biology 1 or 5 or equivalent, each with a grade " C " or better. Completion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. Not open to students with credit in both Biology 20 and 22. (A, CSU-GE)

## 31 MICROBIOLOGY

5 units, 3 lecture hours, 5 lab hours
PREREQUISITE: Biology 1 or 5 or equivalent and Chemistry 3A or equivalent, each with a grade "C" or better. Completion within the last 5 years recommended. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Current topics of biological importance and concern outside the regular biology curriculum or topics that will be covered in greater depth than in a regularly offered course. Presented by biology faculty. (A, CSU)

## 261 INTERNET AND COMPUTER SKILLS LABORATORY

.2-1 unit, 3-6 lab hours, (16 weeks), (Pass/No Pass), (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 selfimprovement through basic reading, writing, and spelling activities. Recommended as a preparatory course for Biology 1 or 3 for those who have not had high school biology or who are not eligible for English 125.

## BODY AND FENDER

SEE AUTOMOTIVE COLLISION REPAIR TECHNOLOGY

## BOTANY see biology

## BUILDING SAFETY AND CODE ADMINISTRATION (BSCA)

10 BUILDING CODES
3 units, 3 lecture hours, (Repeats = 3), (See also Architecture 31)
PREREQUISITE: None.
International building codes and local building zoning ordinances.
(A, CSU)

## 12 PLANS EXAMINING

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Building Safety and Code Administration 10 recommended.

International residential codes and local building zoning ordinances for single family housing and light commercial construction. (A, CSU)

## 14 BUILDING INSPECTION

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Building Safety and Code Administration 10 recommended.

Familiarization with inspections of residential one and two-family dwellings and type $V$ construction, in preparation for I.C.C. Building Inspector certification. (A, CSU)

## 15 PLUMBING CODE AND INSPECTION

3 units, 3 lecture hours, (Repeats $=3$ )
PREREQUISITE: None.
Familiarization with uniform plumbing code, construction and inspection, to prepare for I.A.P.M.O. and/or I.C.C. certification. (A, CSU)

16 MECHANICAL CODE AND INSPECTION
3 units, 3 lecture hours, (Repeats $=3$ )
PREREQUISITE: None.
Familiarization with uniform mechanical code, construction supervision, and inspection in preparation for I.A.P.M.O. and/or I.C.C. certification. (A, CSU)

## 17 NATIONAL ELECTRICAL CODE PART 1

3 units, 3 lecture hours, (Repeats = 3), (See also
Electrical Systems Technology 96A)
PREREQUISITE: None.
Application of all rules for engineering, designing, installing, maintaining, and inspecting electrical systems. Designed for newcomers and professionals seeking preparation for obtaining additional certifications or further knowledge. Branch circuits, electrical services, overcurrent protection and grounding Part I. (A, CSU)

## 18 CALIFORNIA DISABLED ACCESS REGULATIONS

3 units, 3 lecture hours, (Repeats $=3$ )
PREREQUISITE: None.
Familiarization with disabled access codes in California Code of Regulations, Title 24, Part 2, Federal Americans with Disabilities Act of 1990 and Federal Fair Housing Act Amendments of 1988. (A, CSU)

## 20 ADVANCED BUILDING CODE

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Building Safety and Code Administration 10 recommended.

International building codes and local building zoning ordinances for light commercial buildings 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 10 and 14 recommended.

Advanced Building Inspection based on the International Building Code and local zoning ordinances for light-commercial construction. (A, CSU)

## 208 <br> Building and Safety Code Administration

27 NATIONAL ELECTRICAL CODE PART 2
3 units, 3 lecture hours, (Repeats = 3), (See also Electrical Systems Technology 96B)
PREREQUISITE: None.
Application of the rules for engineering, designing, installing, maintaining and inspecting electrical systems. Designed for newcomers to the electrical industry and professional seeking preparation for obtaining additional certifications or further knowledge. General wiring, motors, controls, transformers, other equipment and grounding, Part II. (A, CSU)

## 37 NATIONAL ELECTRICAL CODE PART 3

3 units, 3 lecture hours, (Repeats $=3$ ), (See also Electrical Systems Technology 96C) PREREQUISITE: None.
Application of the rules for engineering, designing, installing, maintaining and inspecting electrical systems. Designed for newcomers to the electrical industry and professionals seeking preparation for obtaining additional certifications or further knowledge. General wiring, motors, controls, transformers, other equipment and grounding, Part III. (A, CSU)

## 47 NATIONAL ELECTRICAL CODE-ELECTRICAL SAFETY <br> 3 units, 3 lecture hours, (Repeats $=3$ ), (See also Electrical Systems Technology 96D) <br> PREREQUISITE: None. <br> Fundamentals of electrical safety as required by NFPA Document 70E. (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 as a Second Language 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 as a Second Language 67 and 68 recommended.

A study of personality traits and their impact on workplace productivity. Desirable personality traits, preventing conflict, handling conflict, resolving
problems, accepting criticism, understanding self-concept, personal and business goals, managing stress, forgiveness, and cultural/international influences are addressed. (A, CSU)

## 8 BUSINESS PROTOCOL AND ETIQUETTE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A survey in business providing a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. Demonstrates how these influences impact the primary areas of business including: organizational structure and design; leadership, human resource management, and organized labor practices; marketing; organizational communication; technology; and entrepreneurship; and legal, accounting, and financial practices; and therefore affect a business' ability to achieve its organizational goals in the U.S. economic system. (A, CSU, UC)

## 10H HONORS INTRODUCTION TO BUSINESS

## 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.

A survey in business providing a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. Demonstrates how these influences impact the primary areas of business including: organizational structure and design; leadership, human resource management, and organized labor practices; marketing; organizational communication; technology; and entrepreneurship; and legal, accounting, and financial practices; and therefore affect a business' ability to achieve its organizational goals in the U.S. economic system with enrichment and service learning activities and linkages to a Business Economics Honors colloquium. (A, CSU, UC)

## 11 INTRODUCTION TO HOSPITALITY MANAGEMENT

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

A comprehensive tour of the fascinating and dynamic hospitality industry from a marketing and management perspective: travel and tourism, lodging, foodservice, meetings, conventions and expositions, leisure and recreation. (A, CSU)

## 13 MANAGING QUALITY ORGANIZATIONS -

 AN INTRODUCTION3 units, 3 lecture hours
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

Provides a systematic approach to constant improvement throughout an organization. An introduction to the themes, teams, and tools and techniques of continuous quality improvement. Emphasis on the quality systems approach to customer focus, continuous improvement, and employee involvement. (A, CSU)

## 14 MANAGING QUALITY ORGANIZATIONS - THE TEAMS

3 units, 3 lecture hours, (Repeats = 3)
ADVISORY: Business Administration 13 and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

Develop skills in team building, group problem solving, and facilitating. Study techniques utilized by creative organizations that empower employees to meet the quality challenge. Emphasis is on team development and group dynamics. (A, CSU)

## 16 BUSINESS AND TECHNICAL REPORT WRITING

3 units, 3 lecture hours
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A study of business and technical report writing including research and interpretation of business topics and data; written memoranda and reports; business letters; briefs/white papers.(A, CSU)

## 18 BUSINESS AND THE LEGAL ENVIRONMENT

4 units, 4 lecture hours, (Formerly Business
Administration 18A)
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Law and the legal system: administrative, tort, criminal, contracts, agency, labor and employment, and international business law. Case studies utilized. (CAN BUS 8) (A, CSU, UC)

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-8 units, (Repeats = 2)
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 8 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 as a Second Language 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 Business
Administration 18B)
PREREQUISITE: Business Administration 18. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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)

## 210 Business Administration

## 23 LEGAL CONCEPTS AND TERMINOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Concepts of American law and legal terminology. A basic overview of institutional sources of law; legal reasoning; judicial decision making and remedies; an overview of the civil and criminal litigation process; alternative dispute resolution mechanisms; ethics and the legal system. (A, CSU)

## 25 INTERNATIONAL BUSINESS - AN INTRODUCTION

3 units, 3 lecture hours
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Compare and contrast the inherent differences and similarities in conducting international business in the areas of production, marketing, finance, human resource management, accounting, technology, legal issues and the impact of culture on the business practices of a multinational corporation.(A, CSU)

## 27 STUDENTS IN FREE ENTERPRISE SIFE

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 $=3)$
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Computer Information Technology 15 and eligibility for English 125 and 126 or English as a Second Language 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: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 RESOURCE MANAGEMENT

3 units, 3 lecture hours
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 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: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

History and present status of the labor movement. (A, CSU)

## 33 HUMAN RELATIONS IN BUSINESS

## 3 units, 3 lecture hours

ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Multidisciplinary examination of how society, economics, and human behavior are inextricably interwoven into the American work environment. An emphasis on employee interaction with coworkers, clients, supervisors/ managers, and their effect on the total organization. Emphasis on communication, societal and cultural differences, conflict resolution, ethics and politics, career selection and entry, inter-personal relations, motivation, leadership, attitude, and group dynamics. (A, CSU)

## 34 FUNDAMENTALS OF INVESTING

3 units, 3 lecture hours
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

How to implement investment goals in light of risk-return tradeoffs. Includes strategies for investments in government securities, corporate bonds, stocks, mutual funds and commodities. (A, CSU)

## 35 BUSINESS FINANCIAL MANAGEMENT

## 3 units, 3 lecture hours

ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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)

## 37 FRANCHISING

3 units, 3 lecture hours
ADVISORY: Business Administration 51, 18, Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduces prospective franchisees to opportunities and challenges associated with franchising. Topics include the nature of franchising; entering into a franchise agreement; franchisor operations; contracts and legal implications; the association between the franchisor and franchisee; and trends and issues in franchising. (A, CSU)

## 38 OPERATION OF THE SMALL BUSINESS

3 units, 3 lecture hours
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

A systematic approach to developing and managing a small business including the development of a formal, comprehensive business plan. 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

3 units, 3 lecture hours, (Formerly Business
Administration 39)
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Focus on first-level supervision. Emphasis on planning, organizing, staffing, leading, and controlling. (A, CSU)

## 43 PRINCIPLES OF MANAGEMENT

3 units, 3 lecture hours
ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

In-depth study of the primary management functions including: strategic and tactical planning; decision-making; organizational design and systems; leadership, motivation and communication; and control systems. (A, CSU)

## 44 WOMEN IN MANAGEMENT

3 units, 3 lecture hours, (See also Women's Studies
44)

ADVISORY: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 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 E-BUSINESS

3 units, 3 lecture hours, (Formerly eCommerce 1)
ADVISORY: Computer Information Technology 12 or 15; eligibility for English 125 and 126 or English as a Second Language 67 and 68; and Mathematics 101 recommended.

A study of the nature and environment of electronic commerce and its strategic implications including: information technology infrastructure; marketing and business models; ethical, financial, legal and global strategic implications; the value chain and enterprise resource planning. (A, CSU)

## 50 BUSINESS CONCEPTS

1.5 units, 1.5 lecture hours, (Formerly Business

Administration 9)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A study of business basics for the non-business major. Topics include a rudimentary survey of marketing, finance, business planning, managing personnel, and an assessment of entrepreneurial readiness for individuals considering an entrepreneurial venture.(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 as a Second Language 67 and 68 recommended.

For non-business majors: Introduces potential entrepreneurs to the considerations of opening a new business. (A, CSU)

## 52 ENTREPRENEURIAL STRATEGIES

3 units, 3 lecture hours
ADVISORY: Business Administration 51 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

For non-business majors: Addresses basic issues potential entrepreneurs encounter: idea feasibility and the development of a rudimentary business plan. Content also addresses legal issues and considerations, marketing the business, financing the business, and entrepreneurial resources.. (A, CSU)

## 55 INTRODUCTION TO LOGISTICS

3 units, 3 lecture hours
ADVISORY: Business Administration 10, and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

An exploration of contemporary logistics and supply chain management from a managerial perspective. The fundamentals of modern logistics are covered. (A, CSU)

## 56 INVENTORY CONTROL MANAGEMENT

3 units, 3 lecture hours
ADVISORY: Business Administration 10, and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

A concise, practical survey of the fundamental principles of production, planning control, and inventory management. (A, CSU)

## 57 SECURITY AND LOSS PREVENTION MANAGEMENT

## 1.5 units, 1.5 lecture hours

ADVISORY: Business Administration 10, and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A comprehensive overview of the interdisciplinary field of security management and loss prevention. Identifies and addresses common security applications and examines the issues encountered within each area. (A, CSU)

## 58 BUSINESS MORALITY AND ETHICS

## 1.5 units, 1.5 lecture hours

ADVISORY: Business Administration 10, and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Applied business ethics and its relationship to free markets, marketing, finance, and the law. Topics cover key issues including management's responsibility for accountability, corporate governance, accounting practices, stakeholder relations, and ethical decision. (A, CSU)

## BUSINESS \& TECHNOLOGY (BT)

## 1 BEGINNING TYPING

4 units, 3 lecture hours, 2 lab hours, (Formerly BSS 1A and Business Information Processing 1)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

4 units, 3 lecture hours, 2 lab hours, (Formerly Business Information Processing 2)
ADVISORY: Business \& Technology 1 or keyboard 25 words per minute and ability to keyboard by touch. Eligibility for English 125 and 126 or English as a Second Language 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. Fulfills the computer literacy graduation requirement. (A, CSU)

## 4 TEN-KEY CALCULATION

2 units, 2 lecture hours, 1 lab hour, (Formerly
Business General Office 8)
ADVISORY: Eligibility for Mathematics 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 as a Second Language 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)

## 6 RECORDS MANAGEMENT

3 units, 3 lecture hours, 1 lab hour, (Formerly
Business Information Processing 10 and Business \&
Technology 10)
ADVISORY: Typing 25 words per minute. Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An introduction to filing methods and principles for all Business \& Technology majors and employees in the business community. Internationally applied rules of records management for manual and computerized systems used to create and maintain filing systems. Mastery of alphabetic, geographic, numeric and subject filing. (A, CSU)

## 7 WORDPERFECT I

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(Repeats = 3), (Formerly Business Information
Processing 7, Business \& Technology 7 and 107)
ADVISORY: Business \& Technology 106 or equivalent and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Basic features of WordPerfect word processing computer software. (A, CSU)

## 8 WORDPERFECT II

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (Repeats $=3$ ), (Formerly Business Information Processing 8 and Business \& Technology 8 and 108)
PREREQUISITE: Business \& Technology 7 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Advanced features of WordPerfect word processing computer software. (A, CSU)

## 9 COMPUTER APPLICATIONS

4 units, 3 lecture hours, 3 lab hours, (Formerly Business Information Processing 9)
ADVISORY: Typing 25 words per minute. Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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. Fulfills the computer literacy graduation requirement. (A, CSU)

## 10 COMPUTER APPLICATIONS II

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Business \& Technology 9 or equivalent.
Intermediate level topics in integrated software for office applications using microcomputers, including word processing, spreadsheets, graphics, database, and electronic communication, using Microsoft Office. Fulfills the computer literacy graduation requirement. (A, CSU)

## 11 TODAY'S OFFICE

2 units, 2 lecture hours, 1 lab hour, (Formerly
Business General Office 18)
ADVISORY: Business \& Technology 6 recommended. Eligibility for English 125 and 126 or English as a Second Language 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: Business \& Technology 112/English 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

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (See also Computer Information Technology 17), (Formerly Business Information Processing 14)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Hands-on operation of Microsoft Windows. Fulfills the computer literacy graduation requirement. (A, CSU)

## 18 SPREADSHEET FUNDAMENTALS

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks), (See
also Computer Information Technology 23), (Formerly Business Information Processing 18)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

Creating 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 CIT 260 or BT 250 available for students to complete homework assignments. (A, CSU)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-8 units, (Repeats = 2), (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 8 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 59A)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 214 Business \& Technology

## 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)

## 23 JOB SEARCH AND WORKPLACE SKILLS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Development of job-seeking and working relations tools and skills for students preparing to enter the workforce. Create marketable resumes and job search/interview strategies. Develop working relations competencies for greater on-the-job productivity and career success. (A, CSU)

## 24 BEGINNING EXCEL

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (See also Computer Information Technology 31), (Formerly Business Information Processing 24)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

Creating a worksheet, formatting the worksheet, using formulas and functions, and creating graphs. Additional lab hours in CIT 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
Computer Information Technology 20), (Formerly Business Information Processing 25)
PREREQUISITE: Computer Information Technology 12 or 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

2 units, 3 lecture hour, 1 lab hour, ( 9 weeks), (See also Computer Information Technology 26), (Formerly Business Information Processing 26)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 CIT 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 as a Second Language 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

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(Repeats = 3), (Formerly Business Information
Processing 28)
ADVISORY: Business \& Technology 106 or equivalent. Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Basic features of MS Word. Designed to equip students with the skills to prepare personal correspondence and reports. Fulfills the computer literacy graduation requirement. (A, CSU)

## 29 MICROSOFT WORD II

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(Repeats = 3), (Formerly Business Information
Processing 29)
ADVISORY: Business \& Technology 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: Business \& Technology 2 or equivalent, Business \& Technology 112/English 159, and eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Development of keyboarding skills by touch using a computer keyboard. (A)

## 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 as a Second Language 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 as a Second Language 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 TYPING SKILLBUILDING

1 unit, 3 lab hours, (Pass/No Pass), (Open Entry/Open Exit), (Formerly Business Information Processing 51A and Business \& Technology 22)
PREREQUISITE: Business \& Technology 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), (Pass/ No Pass), (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

4 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 as a Second Language 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

2 units, 2 lecture hours, 1 lab hour, (See also
Paralegal 156), (Formerly BSS 57A and Business
General Office 56 and Business \& Technology 40)
ADVISORY: Business \& Technology 2 or ability to type 40 words per minute recommended. Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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)
PREREQUISTTE: Business \& Technology 43 or Health Information Technology 10. ADVISORY: Business \& Technology 30, touch typing at 45 words per minute, and eligibility for English 125 and 126 or English as a Second Language 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: Business \& Technology 145 , touch typing at 50 words per minute, and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Advanced medical terminology; transcription of advanced medical documents. (A)

## 216 Business \& Technology

## 147 MEDICAL MANAGER

2 units, 1 lecture hour, 2 lab hours, (Formerly
Business Information Processing 63 and Business \& Technology 47)
ADVISORY: Business \& Technology 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 as a Second Language 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)

## 206 AUTOMATED BUSINESS RECORDS

1 unit, 1 lecture hour, 1 lab hour
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Develop knowledge of record keeping by transferring data from paper accounting forms into a database, entering accounting information (customers, vendors, suppliers, etc.), modifying file structures, designing queries to produce accounting reports, and printing reports, all using the database software.

## 240 LEGAL ISSUES IN MEDICAL BILLING

1 unit, 1 lecture hour
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Legal and ethical issues pertaining to medical billing. Designed to ensure patient confidentiality through HIPAA compliance and avoid medical fraud and abuse.

## 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.

## 251 OFFICE APPLICATION SKILLS LAB

0.2-1 unit, 0.6-3 lab hours, (16 weeks), (Pass/No

Pass), (Repeats $=3$ ), (Open Entry/Open Exit)
PREREQUISITE: None.
Supervised use of ten-key calculators, typing software or office computer applications. 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

## 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Using Microsoft Outlook as an integrated task, scheduling, and communications management software program.

## 277 ACCELERATED EXCEL

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(See also Computer Information Technology 277),
(Formerly Business Information Processing 77 and Business \& Technology 77)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Creating a spreadsheet, formatting the spreadsheet, using formulas and functions, printing a spreadsheet, and creating graphs.

## CLERICAL TRAINING (CTCTC)

## 370 OFFICE ASSISTANT APPLICATIONS

10 lecture hours, 20 lab hours, ( 20 weeks), ( 600 total hours), (Repeats $=3$ ), (Formerly CTVTC 70)
Records management, 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.

## 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 Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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. (CAN CHEM 4) (TCSU CHEM 120) (A, CSU-GE, UC, I)

## 3A INTRODUCTORY GENERAL CHEMISTRY

4 units, 3 lecture hours, 3 lab hours, (Replaces
Chemistry 2A-2B)
PREREQUISITE: Mathematics 101 or equivalent. ADVISORY: Mathematics 103 and eligibility for English 125 and 126 or English as a Second Language 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 $+3 \mathrm{~B}=$ CAN CHEM 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 as a Second Language 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) (TCSU CHEM 140) (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 as a Second Language 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-GE, 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Continuation of Chemistry 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

A survey of Mexican American and Latino history from the indigenous cultural roots to the present. History and heritage of the Chicano-Latino community. (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 as a Second Language 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, (See also Sociology 14),
(Formerly Cultural Studies 14)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Sociological examination of the Chicano-Latino 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

4 units, 3 lecture hours, 2 lab hours, (Repeats = 3), (See also Dance 17), (Formerly Cultural Studies 17)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 ENSEMBLE

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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Survey of Chicano-Latino classic and popular literature. Reading and critical analysis of novels, short stories, poetry, and plays. (A, CSU-GE, UC, I)

## 22 PRE-COLUMBIAN ART

3 units, 3 lecture hours, (See also Art 60)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 AND LATINA

3 units, 3 lecture hours, (Formerly Cultural Studies 24), (See also Women's Studies 24)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

4 units, 3 lecture hours, 2 lab hours, (Repeats = 3),
(See also Dance 27)
PREREQUISITE: Chicano-Latino Studies/Dance 17, or demonstration of comparable skill level to be determined by testing at first class session. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 28 ANCIENT MEXICO: AN INTRODUCTION TO

 MESOAMERICAN CIVILIZATIONS AND CULTURES3 units, 3 lecture hours, (Formerly Cultural Studies
28), (See also Anthropology 28)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

 PERIOD3 units, 3 lecture hours, (Formerly Cultural Studies
29), (See also History 29)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A social, economic, and political survey of Mexican history from the colonial (1521) to the contemporary period. (A, CSU-GE, 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 as a Second Language 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 as a Second Language 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)

## 3 EARLY CHILDHOOD CURRICULLUM

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Verification of freedom from tuberculosis. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 5 PARENT EDUCATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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)

## 8A SCHOOL AGE CHILD: GROWTH AND DEVELOPMENT

 3 units, 3 lecture hoursADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 8B PROGRAMS FOR SCHOOL-AGE CHILD CARE

3 units, 3 lecture hours, (Formerly Child Development 8)
PREREQUISITE: Child Development 8A. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Quality child care and program options for school age child care. Activities, materials, and interaction appropriate for children ages 5 to 14. Program planning, curriculum and environmental design. (A, CSU)

## 9 MUSIC, MOVEMENT, AND DRAMA FOR YOUNG CHILDREN

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Basic skills, methods and theory in music, movement and drama for the young child. Emphasis on integrating music, movement and drama into the early childhood curriculum and developing a repertoire of music, movement and drama materials. (A, CSU)

## 10 SCIENCE AND MATH FOR YOUNG CHILDREN

3 units, 3 lecture hours, (Formerly Child Development 27)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Basic skills, methods and theory in science, math and cooking for the young child. Emphasis on integrating science, math and cooking into the early childhood curriculum and developing resource materials for these curriculum areas. (A, CSU)

## 11 THE YOUNG CHILD WITH SPECIAL NEEDS

3 units, 3 lecture hours
PREREQUISITE: Child Development 38 or 39. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

3 units, 3 lecture hours, (See also Psychology 12)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Issues related to abused, battered, and neglected children including issues related to child sexual molestation and pornography. Characteristics of different types of abusers, pedophiles, and adolescent molesters. Reporting laws and the legal process. Identification, prevention, and treatment of abused children and abusers. (A, CSU)

## 14 YOUTH SUICIDE

1 unit, 1 lecture hour, (See also Psychology 14)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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)

## 16 INTRODUCTION TO EARLY INTERVENTION

3 units, 2 lecture hours, 3 lab hours
PREREQUISITE: Child Development/Psychology 39, verification of freedom from tuberculosis. ADVISORY: Child Development 17A, 11 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Core course for the Early Intervention Assistant Certificate. Studies infants and toddlers with disabilities, atypical development or other special needs, both in the Early Intervention setting and in the Child Care setting. Explores strategies and interventions used in the field of Early Intervention. Current theories in Early Intervention, early relationships, family systems, grief processing and stressors will be studied. (A, CSU)

## 17A INFANT DEVELOPMENT - BIRTH TO AGE THREE

3 units, 2 lecture hours, 3 lab hours, (Formerly Child
Development 7 and 38)
PREREQUISITE: Child Development 39. Verification of freedom from tuberculosis.

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)

## 17B ADVANCED INFANT TODDLER DEVELOPMENT AND CARE

3 units, 3 lecture hours, (Formerly Child Development 7A)
PREREQUISITE: Child Development 17A. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. (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. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. Child Development 18A or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

 1-8 units, (Repeats = 2)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 8 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 as a Second Language 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)

## 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 Child Development 150. Verification of freedom from tuberculosis. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

4 units, 2 lecture hours, 6 lab hours
PREREQUISITE: Child Development 37A. Verification of freedom from tuberculosis. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended. Verification of freedom from tuberculosis is recommended.

Basic theories, research, concepts, and principles of physical, cognitive and psychosocial development at each major stage of life from conception through adolescence. (CAN FCS 14) (A, CSU-GE, UC, I)

40A ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS
3 units, 3 lecture hours, (Formerly Child Development 36A)
ADVISORY: Eligibility for English 125 and 125 or English as a Second Language 67 and 68 recommended. Completion of 12 units in Child Development (recommended Child Development 39 or 150, Child Development 30, $3,37 \mathrm{~A}$ ) plus one year teaching experience in an early care and education program 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 Child Development 39 or 150, 3, 30, 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 as a Second Language 67 and 68 recommended.

Introduction to the basic technology and applications of the computer in Early Childhood Education. Includes computer-aided 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. Fulfills the computer literacy graduation requirement for Child Development majors only. (A, CSU)

## 47 EMERGENT LITERACY

3 units, 3 lecture hours, (Formerly Child Development
47A)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 151 and eligibility for English 125 and 126 or English as a Second Language 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)

## 161 INTRODUCTION TO FOSTER CARE

1 unit, 1 lecture hour, (Formerly Child Development 61 and 261)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The process of foster home licensing. Parenting skills specific to the needs of foster children. Agency resources of and right of foster parents, biological parents and the foster child. (A)

## 162 INDEPENDENT LIVING SKILLS

1 unit, 1 lecture hour, (Formerly Child Development 62 and 262)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

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 primary for the person interested in becoming a foster parent. (A)

## 165A TOPICS IN CHILD DEVELOPMENT: CURRICULUM

1-3 units, 1-3 lecture hours, (Repeats $=3$ ), (Formerly Child Development 65A)
Examination of new topics and trends in curriculum for early childhood programs. (A)

## 165B TOPICS IN CHILD DEVELOPMENT: FAMILY AND COMMUNITY

1-3 units, 1-3 lecture hours, (Repeats $=3$ ), (Formerly Child Development 65B)
Examination of contemporary trends and issues in family life that affect home-school-community relations. (A)

## 165C TOPICS IN CHILD DEVELOPMENT PROGRAM

 ADMINISTRATION1-3 units, 1-3 lecture hours, (Repeats $=3$ ), (Formerly Child Development 65C)
Current issues in early childhood program administration and supervision. (A)

## CHINESE see foreign languages

## CISCO see electrical systems technology (EST)

## COMPUTER AIDED DRAFTING AND

## DESIGN (Cadd) see also drafting

## 14 INTRODUCTION TO COMPUTER AIDED DRAFTING

 3 units, 2 lecture hours, 3 lab hours, (Repeats = 3), (Formerly Drafting 42 and 32)PREREQUISITE: None.
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: Computer Aided Drafting and Design 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: Computer Aided Drafting and Design 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 Computer Aided Drafting and Design 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: Computer Aided Drafting and Design 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: Computer Aided Drafting and Design 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 Computer Aided Drafting and Design
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: Computer Aided Drafting and Design 32 and 36.
Project design using various CAD systems. Portfolio creation including presentation models. (A, CSU)

## COMPUTER AIDED MANUFACTURING (CAM)

## 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 as a Second Language 67 and 68 and Mathematics 101 recommended.

Application of computers and software in drafting and design, CAD hardware, Computer Aided Manufacturing 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: Computer Aided Manufacturing 10. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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: Computer Aided Manufacturing 20. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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: Computer Aided Manufacturing 10. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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: Computer Aided Manufacturing 20. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 TECHNOLOGY
(CIT) FORMERLY INFORMATION SYSTEMS

## 12 COMPUTER LITERACY

3 units, 3 lecture hours, 1 lab hour, (Formerly
Computer Information Systems 56 and Information
Systems 12)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 an introduction to word processing, spreadsheets, and Internet principles and usage. Fulfills the computer literacy graduation requirement. (CAN CSCI 2) (A, CSU, UC)

## 15 COMPUTER CONCEPTS

3 units, 3 lecture hours, 1 lab hour, (Formerly
Computer Information Systems 15 and Information Systems 15)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

Introduction to computers and their use. Topics include basic principles of hardware and software, application programs, systems software, telecommunications, networks, program design, the Internet, and the World Wide Web. Students will work with Windows and the Internet; word processing, spreadsheet, and database programs; and a programming language. Fulfills the computer literacy graduation requirement. (CAN BUS 6) (TCSU IS 120) (A, CSU, UC)

## 17 WINDOWS

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks), (See also Business \& Technology 14), (Formerly Computer Information Systems 14 and Information Systems 14)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Hands-on operation of Microsoft Windows. Fulfills the computer literacy graduation requirement. (A, CSU)

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL 1-8 units, 1 lecture hour, (Repeats = 2), (Formerly Information Systems 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 Computer Information

Technology. Learning objectives established specific to computer information technology. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 8 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## 20 MICROSOFT OFFICE

3 units, 3 lecture hours, 1 lab hour, (See also
Business \& Technology 25), (Formerly Information
Systems 25)
PREREQUISITE: Computer Information Technology 12 or 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)

## 21 ADVANCED MICROSOFT OFFICE

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 46)
PREREQUISITE: Computer Information Technology 20. ADVISORY: Computer Information Technology 60 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 (VBS) to create macros. Advanced topics such as style sheets, 3-D workbooks, file linking, multiple table queries, macros and prototyping. (A, CSU)

## 23 SPREADSHEET FUNDAMENTALS

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(See also Business \& Technology 18), (Formerly Information Systems 5 and 18)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 CIT 260 or BT 250 available for students to complete homework assignments. (A, CSU)

## 24 ADVANCED SPREADSHEETS

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks), (Formerly Information Systems 20)
PREREQUISITE: Computer Information Technology 23 or Business \& Technology 18.

Advanced capabilities of spreadsheets. Solving complex problems using spreadsheets, creating and using macros, creating data tables, working with multiple worksheets and workbooks, and using Visual BASIC to enhance a spreadsheet. (A, CSU)

## 26 DATABASE FUNDAMENTALS

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks), (See also Business \& Technology 26), (Formerly Information Systems 6 and 26)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Creating database files, entering data, modifying database file structure, designing queries, reports and forms. (A, CSU)

## 27 ADVANCED DATABASE

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(Formerly Computer Information Systems 40 and
Information Systems 27)
PREREQUISITE: Computer Information Technology 26 or Business \& Technology 26.

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)

## 29 POWERPOINT

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (Formerly Information Systems 32)
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)

## 31 BEGINNING EXCEL

1 unit, 1 lecture hour, 2 lab hours, ( 9 weeks), (See also Business \& Technology 24), (Formerly Information Systems 24 and 74)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

Creating a worksheet, formatting the worksheet, using formulas and functions, and creating graphs. Additional lab hours in CIT 260 and BT 250 available for students to complete homework assignments. (A, CSU)

## 40 COMPUTER OPERATING SYSTEMS

4 units, 3 lecture hours, 2 lab hours, (Repeats = 1), (Formerly Information Systems 22)
PREREQUISITE: Computer Information Technology 12 or 15.
Principles of computer operating systems. A survey and comparison of the graphical user interface along with the command line interface using various operating systems such as Microsoft Windows and Linux, etc. (A, CSU)

## 45 DATA COMMUNICATIONS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1), (Formerly Computer Information Systems and Information Systems 17)
PREREQUISITE: Computer Information Technology 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)

## 50 FUNDAMENTALS OF NETWORKING

4 units, 4 lecture hours, 1 lab hour, (Repeats =2), (Formerly Information Systems 28, 30 and 30A.) PREREQUISITE: Computer Information Technology 45.
Fundamentals of computer network design, installation, software and communication links. (A, CSU)

## 51 MCSE NETWORK INFRASTRUCTURE

4 units, 4 lecture hours, 1 lab hour, (Repeats = 2), (Formerly Information Systems 30B)
PREREQUISITE: Computer Information Technology 45. ADVISORY: Computer Information Technology 50 recommended.

Implementing and supporting a Microsoft Windows network infrastructure. For product support professionals who will be responsible for installing, configuring and supporting a Microsoft Windows network infrastructure. Prepare students for the MCSE exam. (A, CSU)

## 52 MCSE DIRECTORY SERVICES

4 units, 4 lecture hours, 1 lab hour, (Repeats = 2), (Formerly Information Systems 30C)
PREREQUISITE: Computer Information Technology 45. ADVISORY: Computer Information Technology 50 recommended.

Install, configure, and administer "Active Directory" directory services, which is the directory service for Microsoft Windows. Implementing and configuring "Group Policy" to centrally manage large numbers of users and computers. Prepare students for the MCSE exam. (A, CSU)

## 53 MCSE DIRECTORY INFRASTRUCTURE

2 units, 4 lecture hours, 1 lab hour, ( 9 weeks),
(Repeats $=2$ ), (Formerly Information Systems 30D)
PREREQUISITE: Computer Information Technology 45. ADVISORY: Computer Information Technology 50 recommended.

Design a Microsoft Windows directory services infrastructure in an enterprise environment. Identify the business and administrative needs of an organization that impact the design of Active Directory. Key decision points for naming, delegation of authority, domain design, and site topology design. Prepare students for the MCSE exam. (A, CSU)

## 54 MCSE NETWORK SERVICES

2 units, 4 lecture hours, 1 lab hour, ( 9 weeks), (Repeats $=2$ ), (Formerly Information Systems 30E)
PREREQUISITE: Computer Information Technology 45. ADVISORY: Computer Information Technology 50 recommended.

Design a Microsoft Windows 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. (A, CSU)

## 55 MCSE NETWORK SECURITY

4 units, 4 lecture hours, 1 lab hour, (Repeats = 2), (Formerly Information Systems 30F)
PREREQUISITE: Computer Information Technology 45. ADVISORY: Computer Information Technology 50 recommended.

Design a security framework for small, medium, and enterprise networks by using Microsoft Windows technologies. Prepare students for the MCSE exam. (A, CSU)

## 56 MCSE ISA

4 units, 4 lecture hours, 1 lab hour, (Repeats = 2),
(Formerly Information Systems 30G)
PREREQUISITE: Computer Information Technology 45. ADVISORY: Computer Information Technology 50 recommended.

Implement, administer, and support a Microsoft Internet Acceleration Server (IAS). Install, configure and support a Microsoft ISA Server. Prepare students for the MCSE exam. (A, CSU)

## 60 BEGINNING VISUAL BASIC

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 35 and 47)
PREREQUISITE: Computer Information Technology 15.
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. (A, CSU, UC)

## 61 ADVANCED VISUAL BASIC

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 49)
PREREQUISITE: Computer Information Technology 60 .
Introduction to programming databases in Visual Basic. Beginning or intermediate students will receive a solid foundation working with database theory and use this knowledge to create a fully database-enabled Visual Basic application. Course content includes 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)

## 228 Computer Information Technology

63 BEGINNING JAVA PROGRAMMING
3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 33 and 39)
PREREQUISITE: Computer Information Technology 15.
Introduction to developing Java Applets and applications using the Java programming language. Emphasis on object-orientated programming, control structures, methods, arrays, strings, inheritance, and graphics. (A, CSU, UC)

## 64 ADVANCED JAVA PROGRAMMING

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 34)
PREREQUISITE: Computer Information Technology 63.
Extends programming concepts and techniques covered in the beginning Java programming class. Design and code Java programs, applets, and servets using proper object oriented techniques including inheritance, encapsulation, and polymorphism. Design and implement data structures and abstract data types. Use multidimensional arrays, Java collections, external data files, and exception handling to create meaningful Java programs. (A, CSU, UC)

## 66 BEGINNING C++ PROGRAMMING

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 36)
PREREQUISITE: Computer Information Technology 15 .
Software development using the $\mathrm{C}++$ programming language. Emphasis on object-oriented design, computations, strings, pointers, functions, classes, and objects. (A, CSU, UC)

## 67 ADVANCED C++ PROGRAMMING

3 units, 3 lecture hours, 1 lab hour, (Formerly Information Systems 37)
PREREQUISITE: Computer Information Technology 66.
Build on the $\mathrm{C}++$ 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 allocation, linked lists, sorting techniques, operator overloading, inheritance, and graphics. (A, CSU, UC)

## 68 ADVANCED PROGRAMMING APPLICATIONS

4 units, 3 lecture hours, 2 lab hours, (Repeats $=1$ )
PREREQUISITE: Computer Information Technology 60,63 , or 66 .
Developing programming applications using a variety of programming languages such as Java, C++.NET, Visual Basic.NET. Application development will emphasize the use of object-orientated programming, control structures, methods, arrays, inheritance, and graphical-user interface, etc. (A, CSU, UC)

## 80 INTERNET BASICS

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks), (Formerly Information Systems 7 and 40) PREREQUISITE: None.
Hands-on introduction to the Internet and the World Wide Web, including the use of e-mail, Usenet news groups, discussion boards, browser basics, and FTP. Brief introduction to searching the Web. History of the Internet, how to get connected to the Internet from you home or office computer, Internet ethics, e-commerce, and Netiquette. (A, CSU)

## 81 WORLD WIDE WEB RESEARCH

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(Formerly Information Systems 8 and 41)
ADVISORY: Computer Information Technology 12 or 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)

## 85 CREATING WEBSITES

3 units, 3 lecture hours, 1 lab hour
ADVISORY: Computer Information Technology 15 is recommended.
Design web pages for the Internet using a web page design language. (A, CSU)

## 86 WEB PAGE DEVELOPMENT I

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(Formerly Information Systems 23)
ADvISORY: Eligibility for English 125 and 126 or English as a Second Language 67 or 68 recommended.

Designing web pages for the Internet using a web page design language.
(A, CSU)

## 87 WEB PAGE DEVELOPMENT II

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(Formerly Information Systems 24)
PREREQUISITE: Computer Information Technology 86.
Designing web pages for the Internet using a web page design language. (A, CSU)

## 90 DATA DRIVEN WEBSITES USING DREAMWEAVER

3 units, 3 lecture hours, 1 lab hour, (Formerly
Information Systems 28)
PREREQUISITE: Computer Information Technology 15. ADVISORY: Graphic Communications 15 or 25; Computer Information Technology 86 recommended.

Deploying dynamic websites using Macromedia Dreamweaver and Microsoft Access. Understanding Web-Servers \& Application Servers; Designing a database; Querying a database; Introduction to SQL; Creating forms; Validating form data; Inserting, updating, \& deleting database records;

Retrieving data; Displaying database data in web pages; Creating search forms; Creating dynamic form objects; Authenticating users; Maintaining state: Application Server Programming logic. (A, CSU)

## 93 BEGINNING JAVASCRIPT

3 units, 3 lecture hours, 1 lab hour PREREQUISITE: Computer Information Technology 86.
Fundamentals of JavaScript to add interactivity to HTML/XML web pages and web sites on the Internet. Topics include writing functions, using data from forms, buttons, menus, and text boxes, and using if conditional statements and program loops to make web pages "smarter". (A, CSU)

## 202 INTRODUCTION TO ONLINE LEARNING

1 unit, 1 lecture hour, 3 lab hours, ( 9 weeks), (Pass/
No Pass), (Open Entry/Open Exit)
PREREQUISITE: None.
Learn the skills necessary to take classes online.

## 205 COMPUTER BASICS

2 units, 2 lecture hours, 1 lab hour, (12 weeks)
PREREQUISITE: None.
Introduction to basic computer terminology and skills. Includes introduction to word processing and spreadsheet programs.

## 237 NETWORK+ PREPARATION

2 units, 3 lecture hours, 1 lab hour, ( 9 weeks),
(Repeats = 1), (Formerly Information Systems 231)
PREREQUISITE: Computer Information Technology 15. COREQUISITE: Computer Information Technology 45.

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+ AND SERVER+ SYSTEMS FUNDAMENTALS

3 units, 3 lecture hours, 1 lab hour, (Formerly Information Systems 238)
PREREQUISITE: Computer Information Technology 15.
Skills for personal computer software and hardware support; server software and hardware support: installation, configuration, diagnosing and troubleshooting system software, basic networking, memory management, server principles and configuration and customer satisfaction.

## 239 INET+ PREPARATION

3 units, 3 lecture hours, 1 lab hour, (Repeats = 1), (Formerly Information Systems 239)
PREREQUISITE: Computer Information Technology 15.
Internet basics, Internet clients, Web development, networking, Internet security, and business concepts.

## 260 COMPUTER SKILLS LAB

1 unit, 3 lab hours, (Repeats = 3), (Open Entry/Open Exit), (Formerly Computer Information Systems 60, Information Systems 60, and Information Systems 260)

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

0.2-1 unit, 0.6-3 lab hours, (Pass/No Pass), (Repeats
= 3), (Open Entry/Open Exit), (Formerly Information
Systems 61 and 261)
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.

## 277 ACCELERATED EXCEL

2 units, 3 lecture hours, 2 lab hours, ( 9 weeks),
(See also Business \& Technology 277), (Formerly
Information Systems 77 and 277)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Creating a spreadsheet, formatting the spreadsheet, using formulas and functions, and printing a spreadsheet.

## COMPUTER SCIENCE (CSCI)

## 20 PROGRAMMING IN THE FORTRAN LANGUAGE

3 units, 2 lecture hours, 2 lab hours, (Formerly
Computer Science 16)
PREREQUISITE: Mathematics 103 or equivalent. COREQUISITE: Mathematics 4A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. (CAN CSCI 4) (A, CSU, UC)

## 26 DISCRETE MATHEMATICS FOR COMPUTER SCIENCE

 4 units, 3 lecture hours, 2 lab hours PREREQUIITTE: Computer Science 40 or 40 J , and Mathematics 5 A . 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-GE, UC, I)
## 30 PROGRAMMING IN THE PASCAL LANGUAGE

3 units, 2 lecture hours, 2 lab hours
PREREQUISITE: Mathematics 103 or equivalent. COREQUISITE: Mathematics 4 A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. Students who have limited programming experience are advised to take this course prior to Computer Science 40. (A, CSU)

## 40 PROGRAMMING CONCEPTS AND METHODOLOGY I

4 units, 3 lecture hours, 2 lab hours, (Formerly
Mathematics 30A and Computer Science 30A)
PREREQUISITE: Mathematics 103 or equivalent. COREQUISITE: Mathematics 4 A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended; Computer Science 30 or equivalent recommended.

Introduction to problem solving, algorithm development, procedural and data abstraction using the C++ language; program design, coding, debugging, testing, and documentation. (CAN CSCI 22) (TCSU CSCI 110) (A, CSU, UC)

## 40J PROGRAMming CONCEPTS AND METHODOLOGY IN JAVA

4 units, 3 lecture hours, 2 lab hours
PREREQUISITE: Mathematics 103 or equivalent. COREQUISITE: Mathematics 4A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended; Computer Science 30 or equivalent recommended.

Introduction to problem solving, algorithm development, procedural and data abstraction using the high level computer programming language JAAA; program design, coding, debugging, testing, and documentation. (TCSU CSCI 110) (A, CSU, UC)

## 41 PROGRAMMING CONCEPTS \& METHODOLOGY II

4 units, 3 lecture hours, 2 lab hours, (Formerly
Mathematics 30B and Computer Science 30B)
PREREQUISITE: Computer Science 40 and Mathematics 4A, or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. (CAN CSCI 24) (TCSU CSCI 120) (A, CSU, UC)

## 261 INTERNET AND COMPUTER SKILLS LABORATORY

.2-1 unit, 3-6 lab hours, (16 weeks), (Pass/No Pass),
(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 $1-8$ units, (Repeats $=2$ )
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 8 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, (Repeats = 3), (Formerly Construction 50)
ADVISORY: Eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 an 126 or English as a Second Language 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, (Repeats $=3$ )
ADVISORY: Eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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

9 units, 4 lecture hours, 16 lab hours, (Repeats = 3), (Formerly Construction 51/52)
ADVISORY: Construction 50A and eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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 eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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 eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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

9 units, 4 lecture hours, 16 lab hours, (Repeats = 3), (Formerly Construction 53/54)
ADVISORY: Construction 50B and eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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 50B and eligiblity for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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 eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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 eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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 eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 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 Building Technology 4)
ADVISORY: Mathematics 4A or Drafting 160 and eligibility for English 125 or 126 or English as a Second Language 67 and 68 recommended.

Operation of common surveying equipment, site layout, building layout, grades and benchmarks, and setting line and grade for columns and beams. (A, CSU)

## 232 Construction

## 175 RESIDENTIAL WIRING

4 units, 3 lecture hours, 4 lab hours, (Repeats = 3), (See also Electrical Systems Technology 175), (Formerly Construction 75)
ADVISORY: Eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 67 or 68 recommended.

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
Building Technology 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)

## COUNSELING (COUN)

## 11 STRATEGIES FOR ACADEMIC SUCCESS

3 units, 3 lecture hours, (Formerly Guidance Studies 11)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, (Formerly Guidance Studies 38)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The enhancement of academic language skills for college students. (A, CSU)

## 41 TRANSITIONS

3 units, 3 lecture hours, (Formerly Guidance Studies 41)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Required for probation students on progress or academic disqualification or any level of probation. Provide understanding of institutional policies and procedures governing students and incorporated a comprehensive
course integration of personal, academic and career development with an emphasis in utilizing strategies to get off probation and address issues that hinder success. Designed to enable students to accept responsibility and accountability to stay off probation and apply skills and tools to promote academic success. (A, CSU)

## 43 GROUP DYNAMICS AND SELF UNDERSTANDING

2 units, 2 lecture hours, (Repeats = 1), (Formerly
Guidance Studies 43)
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)

## 47A COLLEGE STUDY SKILLS, GENERAL HABITS

1 unit, 2 lecture hours, ( 9 weeks), (Formerly Guidance Studies 47A and 52)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Establishing effective study habits, developing confidence in learning, goal setting, time and life management, improving concentration and active listening and productive classroom behavior. (A, CSU)

## 47B COLLEGE STUDY SKILLS, ACADEMIC SKILLS

1 unit, 2 lecture hours, ( 9 weeks), (Formerly Guidance Studies 47B and 52)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, ( 9 weeks), (Formerly Guidance
Studies 48)
PREREQUISITE: None.
Career and educational planning for college students. Topics include self-assessment, career exploration, occupational outlook, and decisionmaking, including computerized recourses and career information systems. (A, CSU)

## 49 JOB PREPARATION

1 unit, 2 lecture hours, ( 6 additional hours arranged), (6 weeks), (Formerly Guidance Studies 49) 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, (Formerly Guidance Studies 53)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, (Formerly Guidance Studies 54)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Counseling 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 and 150)
PREREQUISITE: None.
Recommended for freshman students entering college for the first time. Develop supportive services, self-assessment, success planning, time management, campus resources, catalog information, educational planning, and career awareness. Introduces techniques to improve learning strategies along with academic and personal growth. (A)

## 167 FINANCIAL AID MONEY MANAGEMENT

1 unit, 1 lecture hour, (Formerly Guidance Studies 167)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

Recommended for financial aid eligible college students. Designed to help develop a basic awareness of financial aid money management skills including personal student budgeting, and the nature and purpose of financial aid assistance. (A)

## CRIMINOLOGY (CRIM)

## FORMERLY ADMINISTRATION OF JUSTICE

## 1 INTRODUCTION TO CRIMINOLOGY

3 units, 3 lecture hours, (Formerly Administration of Justice 1)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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) (TCSU CJ 110) (A, CSU, UC)

## 3 LEGAL ASPECTS OF EVIDENCE

3 units, 3 lecture hours, (Formerly Administration of Justice 3)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 4)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 5)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 6)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 7)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 8)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Criminology 8 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 11)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, (Repeats $=2$ ) (Formerly Administration of Justice 12)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Fundamentals of gathering and organizing data. The utilization of proper English principles in the effective preparation of reports and in the providing of testimony in court as required by the laws affecting the criminal justice system. (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 as a Second Language 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 Administration of Justice 13)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 15)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Administration of Justice 16)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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

1-8 units, (Repeats $=2$ )
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 8 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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)

## 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, UC)

## 10 MODERN DANCE

1 unit, 3 lab hours, (Repeats = 3), (Formerly Physical Education 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 Physical Education 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 Physical Education 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 porffolio 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 as a Second Language 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

4 units, 3 lecture hours, 2 lab hours, (Repeats = 3), (See also Chicano-Latino Studies 17)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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
Physical Education 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
Physical Education 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 Physical Education 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 1 A 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 Physical Education 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 approved as variable topics; evaluation completed by individual campuses after admission.)

## 24 SELECTED TOPICS IN DANCE THEATRE

1-4 units: 1 unit, 3 lab hours; 2 units, 1 lecture hour, 3 lab hours; 3 units, 1 lecture hour, 6 lab hours; 4
units, 1 lecture hour, 9 lab hours, (Repeats = 3)
PREREQUISITE: Satisfactory completion of four semesters of Dance 22.

Intermediate/advanced-level dance technique and conditioning, improvisation, choreography, rehearsal, and performance for formal theatrical presentation. (A, CSU, UC approved as variable topics; evaluation completed by individual campuses after admission.)

## 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 as a Second Language 67 and 68 recommended.

Preparation of dance participants for attendance at the American College Dance Festival. Participation in master classes and participation/ attendance at adjudication concerts. (A, CSU)

## 27 ADVANCED MEXICAN FOLKLORICO DANCE

4 units, 3 lecture hours, 2 lab hours, (Repeats = 3), (See also Chicano-Latino Studies 27)
PREREQUISITE: Chicano-Latino Studies/Dance 17, or demonstration of comparable skill level to be determined by testing at first class session. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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)

## DECISION SCIENCE (DS)

## 21 FINITE MATHEMATICS

3 units, 3 lecture hours, (Formerly Decision Science
22)

PREREQUISITE: Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 23 BUSINESS STATISTICS

4 units, 4 lecture hours, (Formerly Business
Administration 23)
PREREQUISITE: Mathematics 103 or equivalent.
Descriptive measures including central tendency and dispersion, probability theory, discrete and continuous probability distributions, sampling distributions, central limit theorem, time series, index numbers, one and two sample hypothesis tests, estimation, correlation, regression, analysis of variance, and nonparametric methods. (A, CSU-GE, UC)

## 117 BUSINESS MATHEMATICS

3 units, 3 lecture hours, (Formerly Decision Sciences
17 and 21)
PREREQUISITE: Mathematics 250 or appropriate placement test score.

Formulas and organizing procedures for solving business and consumer math applications. Signed numbers, linear equations, graphing, systems of equations, inequalities, exponents, polynomials, evaluating and simplifying algebraic expressions, and word problems. (A)

## 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 1 A and 1 B , 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 $5 \mathrm{C}, 7 \mathrm{~B}, 8 \mathrm{~B}$, 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 3 A 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 $1 \mathrm{~A}, 3 \mathrm{~A}$, 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), (Pass/No
Pass)
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), (Pass/No Pass)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), (Pass/ No Pass)
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)

## 6A 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 $1 \mathrm{~B}, 2,5 \mathrm{~A}, 8 \mathrm{~A}$, 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 druss; pharmacology, pharmacokinetics, and physiology of local anesthetic agents and nitrous oxide gas. Fulfills the computer literacy graduation requirement for Dental Hygiene majors only. (A, CSU)

## 7A COMMUNITY DENTAL HEALTH I

2 units, 2 lecture hours, (Fall, second year)
PREREQUISITE: Dental Hygiene $3 A$ and 5 A and Psychology 2 , each with a grade of "C" or better. COREQUISITE: Dental Hygiene 1C, $3 \mathrm{~B}, 5 \mathrm{~B}$ and 6 B .

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 $5 \mathrm{C}, 1 \mathrm{D}, 8 \mathrm{~B}$, 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

2 units, 2 lecture hours', (Spring, first year)
PREREQUISTTE: Dental Hygiene 3A with a grade of "C" or better. COREQUISITE: Dental Hygiene $1 \mathrm{~B}, 2,5 \mathrm{~A}, 6 \mathrm{~A}, 11$, and 12 .

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)
PREREQUISTTE: Dental Hygiene 8A with a grade of " C " or better. COREQUISITE: Dental Hygiene $5 \mathrm{C}, 1 \mathrm{D}, 7 \mathrm{~B}$, 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 $5 \mathrm{C}, 1 \mathrm{D}, 7 \mathrm{~B}$, and 8 B .

Nutrition as it relates to dentistry; nutritional counseling and dietary surveys with clinical patients. (A, CSU)

## 10 HEAD AND NECK ANATOMY

2 units, 1 lecture hour, 2 lab hours, (Fall, first year)
PREREQUISTTE: 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)
PREREQUISTE: Dental Hygiene 1A and 3A, each with a grade of "C" or better. COREQUISITE: Dental Hygiene 1B, 2, 5A, 6A, and 8A.

Pharmacology and physiology of local and topical anesthetic agents; the concept of pain and pain control; anatomy of the trigeminal nerve, physiology of nerve conduction, and the blockage of nerve impulses. Preparation of the armamentarium for local anesthetic injections and techniques of regional anesthesia in dentistry. (A, CSU)

## 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 5A, 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 5B.

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)

## 250 WORKABILITY ASSESSMENT AND CAREER AWARENESS <br> 3 units, 2 lecture hours, 3 lab hours, (Pass/No Pass), (Repeats $=3$ ) <br> PREREQUISITE: Student must have a diagnosed verifiable disability. <br> Designed for students with severe disabilities and/or learning disabilities. Emphasizes developing skills in the areas of career assessment, career awareness, career exploration, and career development. Designed to prepare students for employment opportunities.

## 251 WORKABILITY PREPARATION AND JOB PLACEMENT

3 units, 2 lecture hours, 3 lab hours, (Pass/No Pass), (Repeats $=3$ )
PREREQUISITE: Student must have a diagnosed verifiable disability.
Designed for students with severe disabilities and/or learning disabilities. Emphasize work preparation, job development, compensatory skills in preparation for work. Disability issues related to employment. Complete an employment portfolio, gain interviewing skills, and become familiar with the Americans with Disabilities Act and disability related issues in the hiring process.

## 252 WORKABILITY STRATEGIES AND JOB MAINTENANCE

2 units, 2 lecture hours, (Pass/No Pass), (Repeats $=3$ )
PREREQUISITE: Student must have a diagnosed verifiable disability.
Designed for students with severe disabilities and/or learning disabilities. Give students compensatory skills in strategies in the workplace related to personal disability, work ethics, and socialization. Disability issues related to accommodations on the job will be addressed. Assist students with strategies and techniques to obtain and keep employment opportunities.

## 255 WORKABILITY EXPERIENCE

1-4 units, $60-240$ volunteer or $75-300$ paid
employment lab hours, (Pass/No Pass), (Repeats $=3$ )
PREREQUISITE: Student must have a diagnosed verifiable disability.
Designed for students with severe disabilities and/or learning disabilities. Emphasizes developing skills through work experience in the areas of time management, following directions and instructions, appropriate work behaviors, and selecting and planning vocational choices.

## 260 WORKABILITY

3 units, 3 lecture hours, (Pass/No Pass), (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.

## 242 Developmental Services

## 262 GROUP INTERACTION FOR STUDENTS WITH DISABILITIES <br> 2 units, 2 lecture hours, (Pass/No Pass), (Repeats $=1$ ), (Formerly Developmental Services 62) PREREQUISITE: None. <br> 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, (Pass/No Pass), (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, (Pass/No Pass), (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, (Pass/No Pass), (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, (Pass/No Pass), (Repeats = 3),
(Formerly Developmental Services 73)

## 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, (Pass/No Pass),
(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, (Pass/No Pass), (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 (Pass/No Pass),
(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.

## 278 MODIFIED WORD PROCESSING

2 units, 1 lecture hour, 3 lab hours, (Pass/No Pass), (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, (Pass/No Pass), (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 <br> 3 units, 2 lecture hours, 3 lab hours, (Pass/No Pass), (Repeats $=3$ ), (Formerly Developmental Services 80) PREREQUISITE: None. <br> 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, (Pass/No Pass), (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, (Pass/No Pass), (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, (Pass/No Pass) 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, (Pass/No Pass)
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, (Pass/No Pass), (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

1-8 units, (Repeats = 2)
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 8 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 Mathematics 101 or Applied Technology 130.

Elementary algebra review, measurements, logarithms, and trigonometric ratios. (A)

## ECONOMICS (ECON)

## 1A INTRODUCTION TO MACROECONOMICS

3 units, 3 lecture hours
Prerequisite: Mathematics 103. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An introductory analysis of aggregate economic variables. Topics include: market systems, aggregate measures of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policy, international economics and economic growth. (CAN ECON 2) (TCSU ECON 110) (A, CSU-GE, UC, I)

## 1AH HONORS INTRODUCTION TO MACROECONOMICS

3 units, 3 lecture hours
Prerequisite: Mathematics 103. ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

An introductory analysis of aggregate economic variables. Topics include: market systems, Aggregate measures of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policy, international economics and economic growth. Honors sections will discuss and analyze the works of historical economic figures. (TCSU ECON 110) (A, CSU-GE, UC, I)

## 1B INTRODUCTION TO MICROECONOMICS

3 units, 3 lecture hours
Prerequisite: Mathematics 103. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An introductory analysis focusing on the economic choices of individuals. Topics include: scarcity, comparative advantage, market equilibrium, elasticity, cost theory, market structures, factor markets and market failure. (CAN ECON 4) (TCSU ECON 120) (A, CSU-GE, UC, I)

## 1BH HONORS INTRODUCTION TO MICROECONOMICS

3 units, 3 lecture hours
Prerequisite: Mathematics 103. ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

An introductory analysis focusing on the economic choices of individuals. Topics include: scarcity, comparative advantage, market equilibrium, elasticity, cost theory, market structures, factor markets and market failure. Honors sections will discuss and analyze contemporary economic society in historical context. (TCSU ECON 120) (A, CSU-GE, UC, I)

## 25 INTRODUCTION TO ECONOMICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

Survey of the development of economic ideas and theories in the context of economic history. Analysis of major economic thinkers. Introduction to contemporary economic issues and policy controversies. This course is primarily for students planning to major in Social Work at CSU Fresno. Other students should consult their counselor before enrolling. (A, CSU)

## EDUCATION (EDUC)

## 30 SURVEY OF EDUCATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduces students to concepts and issues related to teaching diverse learners in contemporary schools: Teaching as a profession and career, contemporary educational issues, California's content and performance standards and frameworks, and requirements for earning a teaching credential. Meets CSU Fresno requirements when combined with EDA 19, Education Aide. Minimum of 60 hours structured field work in classrooms representing California's diverse student population. Field trips required. (A, CSU)

## 200A CBEST PREPARATION: ENGLISH

.5 unit, 3 lecture hours, ( 3 weeks), (Repeats = 3), (Pass, No Pass), (Formerly Education 100 and 100A)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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), (Pass/No Pass), (Repeats = 3), (Formerly Education 100 and 100B) ADVISORY: Eligibility for Mathematics 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.
Concepts, principles, and methods of one-on-one and group tutoring with supervised practice. Designed for tutors working in college tutorial, math, and English learning centers, and for 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 as a Second Language 67 and 68 recommended.

The role of the special education assistant in the training of students with disabilities. Special education history, philosophy, goals, schools, curriculum, evaluation methods and entry requirements into Educational Aide positions. Field trips required. (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 as a Second Language 67 and 68 recommended.

Focus on the field of Special Education emphasizing the role of the Special Education Aide in Training the learning disabled student. (A, CSU)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

$1-8$ units, (Repeats $=2$ )
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. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 or 68 recommended.

Introduces students to concepts and issues related to teaching diverse learners in contemporary public schools: teacher/education aide success on the job, problem solving, communication skills and collaborative learning activities specific to the teacher and education aide. School field experience relates to lecture content of Education 30 . Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 8 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 (EDAP)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-8 units, (Repeats = 2 )
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 8 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. ( $\mathrm{A}, \mathrm{CSU}$ )

## ELECTRICITY

## SEE ELECTRICAL SYSTEMS TECHNOLOGY

ELECTRICAL SYSTEMS TECHNOLOGY (EST) formerly electronic technology

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL 1-8 units, (Repeats = 2), (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 8 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)

## 246 Electrical Systems Technology

51 DIRECT CURRENT FUNDAMENTALS OF ELECTRONICS
3 units, 3 lecture hours, 1 lab hour, (Repeats = 3), (Formerly Electronic Technology 51) PREREQUISITE: None.
Fundamental principles and applications of direct current circuits. Emphasis on properties of conductors, insulators, and basic components and circuit theory. (A, CSU)

## 52 ALTERNATING CURRENT FUNDAMENTALS

3 units, 2.5 lecture hours, 1.5 lab hours, (Repeats = 3)

PREREQUISITE: None.
Alternating current fundamentals including applicable laws, principles and devices. Designed to meet the needs of industry and for more advanced electronic courses. (A, CSU)

## 53 LAB SAFETY PRACTICES

2 units, 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, (Repeats = 3),
(Formerly Electronic Technology 53)
PREREQUISITE: None.
Introduction to digital systems and subcomponents. Introduction to analog vs. digital world, numbering systems, logic gates, digital transmission and communication, decoders, encoders, multiplexer and multiplexed transmission, registers and memory devices, as well as, digital circuit design on computers. (A, CSU)

## 55B FACILITY AUTOMATION

3 units, 3 lecture hours, 1 lab hour, (Repeats = 3)
PREREQUISITE: None.
Facility automation fundamentals identifying various aspects of the control systems within a commercial building. (A, CSU)

## 55C SCADA SYSTEMS

2 units, 2 lecture hours, 1 lab hour, (Repeats = 3)
PREREQUISITE: None.
Principles and application of SCADA. Aspects of the data acquisition system from specification and application. Gives a solid understanding of interfacing a PC to real world measurement devices. (A, CSU)

## 56A WIRING METHODS

3 units, 2.5 lecture hours, 1.5 lab hours, (Repeats = 3 ) PREREQUISITE: None.
Introduction and application of electrical wiring methods as recognized by the National Electrical Code. Includes wiring methods and procedures for residential, commercial and industrial applications. Major emphasis will be placed upon electrical safety as applied to electrical power systems. (A, CSU)

## 56B MOTOR CONTROLS

3 units, 2.5 lecture hours, 1.5 lab hours, (Repeats = 3) PREREQUISITE: None.
Investigation and implementation of motor control. Emphasis on the fundamentals of motor operation, electrical systems, controls as well as the National Electrical Code. (A, CSU)

## 56C INDUSTRIAL ELECTRONICS

3 units, 2.5 lecture hours, 1.5 lab hours, (Repeats = 3 ) PREREQUISITE: None.
Application of electronic principles in the industrial environment. Emphasis on power circuits, control circuits and electronic components. (A, CSU)

## 57A ANALOG COMMUNICATIONS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 3)
PREREQUISITE: None.
Analog modulation techniques and the frequency spectrum. (A, CSU)

## 57B DIGITAL COMMUNICATIONS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 3)
PREREQUISITE: None.
Digital multiplexing, modems and fiber optics. (A, CSU)

## 57C VOICE AND DATA CABLING

3 units, 2.5 lecture hours, 1.5 lab hours, (Repeats = 3)

PREREQUISITE: None.
The course focuses on cabling issues related to data and voice connections and provides an understanding of the industry and its worldwide standards, types of media and cabling, physical and logical networks, as well as signal transmission. (A, CSU)

## 58 PROGRAMMABLE LOGIC CONTROLLERS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 3),
(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, (Repeats = 3),
(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 Instrumentation, Systems, and Automation Society. (A, CSU)

## 60 A+PC MAINTENANCE

3 units, 3 lecture hours, 1 lab hour, (Repeats = 3), (Formerly Electronic Technology 61)
PREREQUISITE: None.
Skills for computer hardware support; installation, configuration, diagnosing and troubleshooting computer hardware. (A, CSU)

## 61 NETWORKING ESSENTIALS

3 units, 3 lecture hours, 1 lab hour, (Repeats = 3)
(Formerly Electronic Technology 59)
ADVISORY: Electrical Systems Technology 55A, 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, (Repeats = 3)
PREREQUISITE: Electrical Systems Technology 61.
Local Area Network routers and switches including basic configuration and protocols. Second class for the Cisco CCNA Certification. (A, CSU)

## 63 ADVANCED ROUTING AND SWITCHING

3 units, 3 lecture hours, 1 lab hour, (Repeats = 3)
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, (Repeats = 3)
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 = 3 )
PREREQUISITE: Electrical Systems Technology 64 or CCNA Certification.

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 = 3 )
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 = 3)
PREREQUISITE: Electrical Systems Technology 65.
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 = 3)
PREREQUISITE: Electrical Systems Technology 66 and 67.
Diagnosing and correcting problems on VLANS and WAN networks. Fourth class for the Cisco CCNP Certification. (A, CSU)

## 96A NATIONAL ELECTRICAL CODE PART 1

3 units, 3 lecture hours, (Repeats = 3), (See also Building Safety and Code Administration 17) PREREQUISITE: None.
Application of all rules for engineering, designing, installing, maintaining, and inspecting electrical systems. Designed for newcomers and professionals seeking preparation for obtaining additional certifications or further knowledge. Branch circuits, electrical services, overcurrent protection and grounding Part I. (A, CSU)

## 96B NATIONAL ELECTRICAL CODE PART 2

3 units, 3 lecture hours, (Repeats = 3), (See also
Building Safety and Code Administration 27)
PREREQUISITE: None.
Application of the rules for engineering, designing, installing, maintaining and inspecting installations. Designed for newcomers to the electrical industry and professional seeking preparation for obtaining additional certifications or further knowledge. General wiring, motors, controls, transformers, other equipment and grounding, Part II. (A, CSU)

## 248 Electrical Systems Technology

96C NATIONAL ELECTRICAL CODE PART 3
3 units, 3 lecture hours, (Repeats = 3), (See also
Building Safety and Code Administration 37)
PREREQUISITE: None.
Application of the rules for engineering, designing, installing, maintaining and inspecting electric systems. Designed for newcomers to the electrical industry and professionals seeking preparation for obtaining additional certifications or further knowledge. General wiring, motors, controls, transformers, other equipment and grounding, Part III. (A, CSU)

## 96D NATIONAL ELECTRICAL CODE-ELECTRICAL SAFETY

3 units, 3 lecture hours, (Repeats $=3$ ), (See also
Building Safety and Code Administration 47)
PREREQUISITE: None.
Fundamentals of electrical safety as required by NFPA Document 70E. (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)
ADVISORY: Eligibility for Applied Technology 130 or Mathematics 101 and eligibility for English 125 and 126 or English as a Second Language 67 or 68 recommended.

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)

## 240 BUILDING AUTOMATION

2 units, 2 lecture hours, (Repeats = 3)
PREREQUISITE: None.
Building automation fundamentals identifying various aspects of the control systems within a commercial building envelope.

## 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: Electrical Systems Technology 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 = 3 )
PREREQUISITE: Electrical Systems Technology 61 or Computer Information Technology 45 or equivalent.

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.

## ELECTRONICS

SEE ELECTRICAL SYSTEMS TECHNOLOGY (EST)

## ENGINEERING (ENGR)

## 1A ELEMENTARY PLANE SURVEYING 1

4 units, 3 lecture hours, 3 lab hours
PREREQUISTE: Mathematics 4 A .
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

4 units, 3 lecture hours, 3 lab hours
PREREQUISTTE: Engineering 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: Mathematics 4 A and eligibility for English 125 and 126 or English as a Second Language 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) $(\mathrm{A}, \mathrm{CSU}, \mathrm{UC})$

## 4 ENGINEERING MATERIALS

3 units, 3 lecture hours, (Formerly Engineering 32)
PREREQUISITE: Chemistry 1A and Physics 4A.
Properties of engineering materials and their relation to atomic structure. The effect of microstructure on the mechanical, electrical, magnetic and thermal properties. Phase equilibria and strengthening processes for metals, ceramics, and polymers. (CAN ENGR 4) (A, CSU, UC)

## 6 CIRCUITS WITH LAB

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Physics 4B. ADVISORY: Concurrent enrollment in Mathematics 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) $(\mathrm{A}, \mathrm{CSU}, \mathrm{UC})$

## 10 INTRODUCTION TO ENGINEERING

## 2 units, 2 lecture hours

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An introduction to the engineering profession for students interested in a career in engineering or technology. Topics include analytical problem solving techniques, career opportunities, professional ethics, and the design process. Projects and field trips required. (A, CSU, UC)

## 11 MANUFACTURING PROCESSES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Processing and manufacturing techniques for steel, ceramics, polymers, composites and other industrial materials. Topics include the capabilities and limitations of casting, welding, forming, and machining. Demonstrations and field trips may be included. (A, CSU)

## ENGINEERING TECHNOLOGY

## SEE DRAFTING

## ENGLISH (ENGL)

## 1A READING AND COMPOSITION

## 4 units, 4 lecture hours

PREREQUISTEE: "Credit" grade in English 125 or English as a Second Language 67 and English 126 or English as a Second Language 68 or appropriate score on reading and writing sections of the Placement Test.

Reading, analyzing, and writing college-level prose, with emphasis on the expository; studying writing as aprocess; 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)
PREREQUISITE: A "Credit" grade in English 125 or English as a Second Language 67 and English 126 or English as a Second Language 68 or appropriate score on reading and writing sections of the Placement Test. 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. (CAN ENGL 4) (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 as a Second Language 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
PREREQUISITE: Eligibility for English 1A.
Advances reading comprehension, enlarges vocabulary, develops flexibility of reading rate of college level material. (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
PREREQUISITE: English 1A or the equivalent. English 1B is not a prerequisite for this course.

Reading and critical analysis of folklore and folk literature from around the world in literature, film, and the visual arts, including the cultural and literary roots of folklore and folk literature. (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. (CAN ENGL 6)(A, CSU-GE, 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-GE, 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-GE, 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-GE, UC)

## 17 AFRICAN-AMERICAN LITERATURE

3 units, 3 lecture hours, (See also African-American Studies 17)
PREREQUISITE: English 1A.
Reading critical works of African and African-American writers and understanding their cultural values and themes as expressed in essays, short stories, novels, poetry, and plays. (A, CSU-GE, UC, I)

## 20 ASIAN-AMERICAN LITERATURE

3 units, 3 lecture hours, (See also Asian-American
Studies 20)
PREREQUISITE: English 1A or the equivalent.
Survey of Asian-American classic and contemporary literature. Reading and writing critical analysis of novels, short stories, poems and plays. (A, CSU, UC)

## 36 WOMEN IN LITERATURE

3 units, 3 lecture hours, (See also Women's Studies
36)

PREREQUISITE: English 1A or equivalent. English 1 B is not a prerequisite for this course.

Survey of literature by and about women in fiction, drama, poetry, biography, and essay. Covers multicultural and international literature from classical to contemporary periods, in addition to feminist and gender theory. (A, CSU-GE, UC, I)

## 40 CRITICAL THINKING ABOUT LITERATURE

3 units, 3 lecture hours, (Repeats =1)
PREREQUISITE: English 1A. English 1B is not a prerequisite for this course.

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: English 1A. English 1B is not a prerequisite for this course.

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 TO THE RENAISSANCE

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 SINCE THE RENAISSANCE

## 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 1A 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 46 A is a prerequisite for this class.

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

## 47 INTRODUCTION TO SHAKESPEARE

3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent.
An introduction to the plays and poetry of William Shakespeare, including selections from the tragedies, comedies, histories, and sonnets. (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)

## 252 English

## 48B INTRODUCTION TO AMERICAN LITERATURE FROM WORLD WAR I TO THE PRESENT

3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent. Neither English 1B nor English 48 A is 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 16) (A, CSU-GE, UC, I)

## 105 GRAMMAR AND PUNCTUATION

2 units, 2 lecture hours, (Formerly English 5)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Elements of basic sentence structure, including appropriate punctuation. (A)

125 WRITING SKILLS FOR COLLEGE
4 units, 4 lecture hours, (Pass/No Pass), (Formerly English A and 25)
PREREQUISITE: Designated score on English placement test, or satisfactory completion of English 252 or 282. Not recommended for students learning English as a second language.

Develops the process of writing, revising and finishing short papers, including logical development and organization of ideas. Emphasizes avoiding common writing errors; develops critical thinking and writing by reading model essays by analyzing and utilizing rhetorical strategies appropriate to purpose and audience. Develops basic research skills. Meets A.A./A.S. degree requirements for writing. Prepares students for English 1A. (A) **

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** Associate Degree requirements change Fall 2009. Refer to page 35 for details.
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## 126 READING SKILLS FOR COLLEGE

4 units, 4 lecture hours, (Pass/No Pass), (Formerly English 26)
PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 262 or 278. Not recommended for students learning English as a second 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)

## 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 as a Second Language 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, 4 lecture hours, (Pass/No Pass), (Formerly English 50)
PREREQUISITE: Designated score on English placement test with other relevant criteria. Not recommended for students learning English as a second language. Not primarily for students with identified learning disabilities.

Students will develop a basic understanding of paragraph and essay structures and an understanding that writing is for communication. Students will identify possible essay topics and develop a rudimentary ability to find and correct grammatical errors. This course prepares students for English 252. Students must satisfactory complete coursework to receive credit for the course.

## 252 WRITING IMPROVEMENT

4 units, 4 lecture hours, (Pass/No Pass), (Formerly English 52)
PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 250 or 281 . Not recommended for students learning English as a second language. Not primarily for students with identified learning disabilities.

Developing writing skills. Understanding, finding and correcting grammatical errors. Prepares students for English 125. Students must satisfactory complete course work to receive credit for the class.

## 260 BASIC READING

4 units, 4 lecture hours, (Pass/No Pass), (Formerly English 60)
PREREQUISITE: Designated score on English placement test with other relevant criteria recommended. Not recommended for students learning English as a second 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 comprehension test to receive credit for the course.

## 262 READING IMPROVEMENT

4 units, 4 lecture hours, (Pass/No Pass), (Formerly English 62)
PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 262 or 278. Not recommended for students learning English as a second 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 comprehension test to receive credit for the course.

## 277 READING SKILLS

3 units, 3 lecture hours, (Pass/No Pass), (Repeats = 3), (Formerly English 77)

PREREQUISITE: Designated score on English placement test with other relevant criteria. Not recommended for students learning English as a second language. Students must have a diagnosed verifiable disability.

Development of basic reading readiness skills through learning main ideas and important details. Prepares students for English 262 and 278.

## 278 READING COMPREHENSION

3 units, 3 lecture hours, (Pass/No Pass), (Repeats = 3), (Formerly English 78)

PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 277. Not recommended for students learning English as a second language. Students must have a diagnosed verifiable disability.

Development of reading skills through vocabulary usage, literal comprehension, and critical comprehension. Development of various strategies for comprehending different types of written materials. Prepares students for English 126.

## 279 BEGINNING SPELLING, VOCABULARY, PENMANSHIP

2 units, 1 lecture hour, 3 lab hours, (Pass/No Pass), (Repeats = 3), (Formerly English 79)
PREREQUISITE: Students must have a diagnosed verifiable disability.

Spelling, vocabulary building, and penmanship at the 3rd to 6th grade level.

## 280 ADVANCED SPELLING AND VOCABULARY

2 units, 1 lecture hour, 3 lab hours, (Pass/No Pass), (Repeats = 3), (Formerly English 80)
PREREQUISITE: Students must have a diagnosed verifiable disability.

An emphasis on spelling and vocabulary building at 6th to 9th grade level.

## 281 SENTENCE AND GRAMMAR WRITING

3 units, 3 lecture hours, (Pass/No Pass), (Repeats = 3), (Formerly English 81)

PREREQUISITE: Designated score on English placement test with other relevant criteria. Not recommended for students learning English as a second language. Students must have a diagnosed verifiable disability.

Development of a basic understanding of paragraph and essay structures and an understanding that writing is for communication. Identification of possible essay topics and develop an ability to find and correct grammatical errors. Prepares students for English 252 or 282.

## 282 PARAGRAPH WRITING

3 units, 3 lecture hours, (Pass/No Pass), (Repeats =
3), (Formerly English 82)

PREREQUISITE: Designated score on English placement test with other relevant criteria or satisfactory completion of English 250 or 281. Not primarily recommended for students learning English as a second language. Students must have a diagnosed verifiable disability.

Development of writing skills through understanding, finding and correcting grammatical errors. Prepares students for English 125.

## ENGLISH AS A SECOND LANGUAGE (ESL)

## 67 ADVANCED 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 English as a Second Language placement test or completion of English as a Second Language 265W with a grade of "C" or better.

At an advanced level, develops the process of writing, revising and editing compositions, a process which includes logical development and organization of ideas; develops analytical and critical thinking skills by reading and responding to model essays; reinforces grammar skills; develops study skills for an academic environment; prepares speakers of other languages for English 1A. (A, CSU)

## 68 ADVANCED READING AND VOCABULARY

4 units, 4 lecture hours
PREREQUISITE: Use of language other than English as a primary language. Designated score on English as a Second Language placement test or completion of English as a Second Language 265R with a grade of "C" or better.

Advances students' skills in the areas of vocabulary usage, literal comprehension, critical reading, and cultural inferences as necessary for mainstream college classes. Improves students' reading skills and trains students to use reading strategies that can be applied to various reading tasks. Emphasizes reading as a problem-solving process. (A, CSU)

## 262 BASIC ACADEMIC STUDY SKILLS

3 units, 3 lecture hours, (Pass/No Pass), (Formerly English 55A and English as a Second Language 62)
PREREQUISITE: Use of language other than English as primary language. Designated score on English as a Second Language placement test.

Beginning grammar, writing, reading, vocabulary, listening, speaking, and study skills. Designed to prepare speakers of other languages for English as a Second Language 263W and 263R.

## 254 English as a Second Language

## 263R LOW INTERMEDIATE READING AND VOCABULARY

4 units, 4 lecture, (Pass/No Pass), (Formerly English
as a Second Language 63R)
PREREQUISITE: Use of language other than English as a primary language. Designated score on English as a Second Language placement test or completion of English as a Second Language 262 with a grade of "C" or better.

Advances students' skills in the areas of vocabulary usage, literal comprehension, critical reading, and cultural inferences as necessary for mainstream college classes. Improves students' reading skills and trains students to use reading strategies that can be applied to various reading tasks. Emphasizes reading as a problem-solving process.

## 263W LOW INTERMEDIATE WRITING AND GRAMMAR

4 units, 4 lecture hours, (Pass/No Pass), (Formerly
English 54A and English as a Second Language 63 and 63W)
PREREQUISITE: Use of language other than English as primary language. Designated score on English as a Second Language placement test or completion of English as a Second Language 262 with a grade of "C" or better.

Develops the process of writing, revising and editing at high-beginning to low-intermediate level. Designed to prepare speakers of other languages for English as a Second Language 264W.

## 264R INTERMEDIATE READING AND VOCABULARY

4 units, 4 lecture, (Pass/No Pass), (Formerly English as a Second Language 64R)
PREREQUISITE: Use of language other than English as a primary language. Designated score on English as a Second Language placement test or completion of English as a Second Language 263R with a grade of "C" or better.

Advances students' skills in the areas of vocabulary usage, literal comprehension, critical reading, and cultural inferences as necessary for mainstream college classes. Improves students' reading skills and trains students to use reading strategies that can be applied to various reading tasks. Emphasizes reading as a problem-solving process.

## 264W INTERMEDIATE WRITING AND GRAMMAR

4 units, 4 lecture hours, (Pass/No Pass), (Formerly
English 54B and English as a Second Language 64 and 64W)
PREREQUISITE: Use of language other than English as primary language. Designated score on English as a Second Language placement test or completion of English as a Second Language 263W with a grade of "C" or better.

Develops the process of writing, revising, and editing at an intermediate level. Includes the preparation for and composition of paragraphs and appropriate grammar as taught through model essays and exercises. Designed to prepare speakers of other languages for English as a Second Language 265W.

265R HIGH INTERMEDIATE READING AND VOCABULARY
4 units, 4 lecture hours, (Pass/No Pass), (Formerly English as a Second Language 65R)
PREREQUISITE: Use of language other than English as a primary language. Designated score on English as a Second Language placement test or completion of English as a Second Language 264R with a grade of "C" or better.

Advances students' skills in the areas of vocabulary usage, literal comprehension, critical reading, and cultural inferences as necessary for mainstream college classes. Improves students' reading skills and trains students to use reading strategies that can be applied to various reading tasks. Emphasizes reading as a problem-solving process.

## 265W HIGH INTERMEDIATE WRITING AND GRAMMAR

4 units, 4 lecture hours, (Pass/No Pass), (Formerly
English 54C and English as a Second Language 65 and 65W)
PREREQUISITE: Use of language other than English as a primary language. Designated score on English as a Second Language placement test or completion of English as a Second Language 264W with a grade of "C" or better.

Develops the process of writing, revising, and editing at a high-intermediate level. Includes the preparation for and composition of essays and use of appropriate grammar as taught through model essays and exercises. Designed to prepare speakers of other languages for English as a Second Language 67.

## 270 PRONUNCIATION IMPROVEMENT AND ACCENT REDUCTION

3 units, 3 lecture hours, (Pass/No Pass), (Repeats =1)
ADVISORY: Eligibility for English as a Second Language 265W, English as a Second Language 265R recommended.

For English as a Second Language 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.

## 273 ENGLISH ESSENTIALS FOR HEALTH PROFESSIONALS

2 units, 2 lecture hours, (Pass/No Pass)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The development of reading, critical thinking, and study strategies to successfully manage assignments in Allied Health classes. Emphasis will be on the acquisition, pronunciation, and effective use of language as it applies to the health professions. The class will include the examination of underlying language structures and the medical vocabulary needed to support reading comprehension and analysis of texts and professional journals related to health issues and health delivery systems.

## 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 as a Second Language 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 as a Second Language 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

1-8 units, (Repeats $=2$ )
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 8 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 as a Second Language 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, labeling, simple testing, and evaluation of performance. Hands-on experience testing fiber characteristics. Appropriate for students in fashion merchandising, apparel construction, and interior design, as well as for all consumers who wear and care for apparel and furnishings. (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 as a Second Language 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 as a Second Language 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. (A, CSU)

## 25 PROFESSIONAL IMAGE

3 units, 3 lecture hours, (Formerly Retailing Fashion 12)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 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 as a Second Language 67 and 68, and Mathematics 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)

## FILM (FILM)

## 1 INTRODUCTION TO FILM STUDIES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduction to the study of film with emphasis on aesthetics, theory, and methods of critical analysis. Lectures, discussions, and readings are supplemented by screenings of representative films. (A, CSU-GE, UC, I)

## 2A HISTORY OF CINEMA 1895-1960

3 units, 3 lecture hours, (Formerly Film 1A)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A survey of international film history from the invention of cinema in the 1890 s to 1960 , including the development of narrative, documentary, and avant-garde film of the period; the aesthetic, technological, economic, and social factors that shaped this medium; and its impact on diverse societies and cultural values. (A, CSU-GE, UC, I)

## 2B HISTORY OF CINEMA 1960-PRESENT

3 units, 3 lecture hours, (Formerly Film 1B)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A survey of international film history from 1960 to the present; the aesthetic, technological, economic, and social factors that shape this medium; and its impact on diverse societies and cultural values. (A, CSU-GE, UC, I)

## 3 FILM AND CULTURE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The relationship between film and culture, including the images of race, ethnicity, class, and gender in film; the ways in which ideologies are conveyed through popular film; and the technological, industrial, and aesthetic factors affecting screen content. Lectures, discussions, and readings are supplemented by screenings of representative films. (A, CSU-GE, UC, I)

## 5 DIGITAL FILMMAKING

3 units, 3 lecture hours, (Repeats = 3)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduction to video filmmaking, including scripting, shooting, and editing short digital films. Emphasis on personal and creative expression. (A, CSU, UC)

## 6 FILM GENRES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Genre study to provide a clear context for appreciating the fundamental components of film as art and as social expression. Investigates the origins, evolution and transformations of various film genres, including film noir, the Western, science-fiction, the musical, horror, war, or the crime film. Covers the formal and thematic conventions of each genre and the genre as a reflection of the social environments that produced them. (A, CSU-GE, UC, I)

## 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 as a Second Language 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 as a Second Language 67 and 68 , and Mathematics 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 <br> 3 units, 8.4 lecture hours, (7 weeks), (Spring), (Formerly Fire Science 5) <br> ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended. <br> 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Hazardous materials management system; health effects and treatment; the incident command system; applying the eight step process; hazard assessment and risk evaluation involved in spills, fire and accidents; information regarding emergency procedures, legal requirements and compliance to regulations; fire department protocols and responsibilities; selection of proper personal protective clothing and equipment. (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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

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

27 units, 10.38 lecture hours, 15.56 lab hours, (31 weeks), (Formerly Fire Science 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 as a Second Language 67 and 68 recommended.

Preparation of students for entry-level employment as a firefighter; provides students 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; 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 and Fire Technology 31)
PREREQUISITE: Possession of a valid CPR card that proves training equivalent to the American Heart Associations' Guideline 2000 for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care at the Health Provider level. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 1 certificate.
Designed to produce qualified and competent EMT - Paramedics who are educated and trained in all elements of pre-hospital advanced life support to the acutely or injured patients and whose scope of practice is in accordance with Title 22 of the California Code of Regulations. (A)

## 258 Fire Technology

## 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Provides fire emergency personnel with information and experience in command and control techniques used at the scene of hazardous materials, multi-casualty, and wildland fire emergencies; emphasizes decision making; act of commanding; authority or right to command; personnel, organization, structure or area under an individual commander, and 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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)

## 150K FIRE COMMAND 1C

## 2 units, 8.4 lecture hours, ( 5 weeks)

PREREQUISITE: Fire Technology 150D. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Provide emergency personnel with information on the three elements of wildland fire behavior including fuel, weather, and topography, elements of the Incident Command System with an emphasis on Incident Action Planning, and duties and responsibilities of the Strike Team leader. I-Zone firefighting as it relates to the communications process, the elements of sizeup, and the key components of a report on conditions. One of the California Fire Service Training and Education System classes needed for Fire Officer certification. (A)

## 261 EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER

1 unit, 1.33 lecture hours, (Repeats = 3), (Open Entry/Open Exit),(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.

## 269 ADVANCED FIREFIGHTER TOPICS

0.1-2 units, 1-40 lecture hours, 1-60 lab hours, (1-18 weeks), (Pass/No Pass), (Unlimited Repeats), (Open Entry/Open Exit)
PREREQUISITE: Fire Technology 130 or currently employed by a fire agency.

Satisfies mandatory yearly requirements of the local fire agency, Fresno County Health Department, the California State Fire Marshal's Office, and the appropriate sections of the California Code of Regulations. Course content to be determined by the respective agencies.

## FOOD AND NUTRITION (fN)

## 1 PRINCIPLES OF FOOD PREPARATION

3 units, 2 lecture hours, 3 lab hours, (Formerly Home Economics 1)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 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. (TCSU NUTR 110) (A, CSU)

## 40 NUTRITION

3 units, 3 lecture hours, (Formerly Home Economics
40)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 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) (TCSU NUTR 110) (A, CSU, UC)

## 41 SPORTS NUTRITION

2 units, 2 lecture hours, (Formerly Home Economics 41)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 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 as a Second Language 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: Food and Nutrition 40 or equivalent strongly recommended. Concurrent enrollment in Food Service Management 19 recommended. Eligibility for English 125 and 126 or English as a Second Language 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: Eligibility for English 125 and 126 or English as a Second Language 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 and supervision of food service employees. (A, CSU)

## 15 FOOD PRODUCTION MANAGEMENT

2 units, 2 lecture hours, (Formerly Dietetic Services 15)

ADVISORY: Food Service Management 35 recommended. Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended. 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, and systems of productions. (A, CSU)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-8 units, (Repeats $=2$ )
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 8 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 as a Second Language 67 and 68 and Mathematics 101 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 as a Second Language 67 and 68 recommended. Concurrent enrollment in Food Service Management 19 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 Restaurant Association ServSafe 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 as a Second Language 67 and 68 and Mathematics 101 recommended.

Quantity food preparation with emphasis on recipe standardization, use of equipment and time, application of the principles of sanitation and safety, and 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 as a Second Language 67 and 68 and Mathematics 101 recommended.

Overview of the components of model child nutrition programs including the application of current child health and nutrition principles, nutrition education practice, marketing procedures, communication strategies, and operation management skills. Management of nutritionally and fiscally sound child nutrition programs. Effective use of community and school partnership. (A, CSU)

## 144 PRESENTING SERVICE FOR FOOD SERVICE PROFESSIONALS

2 units, 2 lecture hours, (Formerly Food Service Management 44)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, 1.5 lecture hours, (Formerly Food Service Management 46)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, 1.5 lecture hours, (Formerly Food Service Management 47)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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)

## 149 FOOD SERVICE INTERNSHIP

3 units, 1 lecture hour, 6.67 lab hours, (Formerly Food Service Management 49)
ADVISORY: Food Management 35, Food and Nutrition 1 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 as a Second Language 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, 2 lecture hours, (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, (Formerly Food Services 62 and Food Service Management 62)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 and Food Service Management 160 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 American Sign Language 1A)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, I)

## 2 HIGH-BEGINNING AMERICAN SIGN LANGUAGE,

 4 units, 4 lecture hours, (Formerly American Sign Language 1B)PREREQUISITE: American Sign Language 1 or two year high school American Sign Language or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester beginning American Sign Language and the visualgestural language used by the Deaf in the United States and Canada. Explores the culture of Deaf people in the United States. (A, CSU-GE, UC, I)

## 3 INTERMEDIATE AMERICAN SIGN LANGUAGE

4 units, 4 lecture hours, (Formerly American Sign Language 2A)
PREREQUISITE: American Sign Language 2 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

 4 units, 4 lecture hours, (Formerly American Sign Language 2B)PREREQUISITE: American Sign Language 3 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Deaf community for which American Sign Language serves as the primary language. (A, CSU-GE, UC, I)

## 5 DEAF CULTURE

3 units, 3 lecture hours
PREREQUISTE: American Sign Language 4 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An in-depth study of Deaf culture and the Deaf community which will help students understand Deaf culture, values, language, identity, rules of interaction, and traditions. Students will learn about the deep-rooted ties that Deaf have with residential schools; Gallaudet University; and national, state, and local organizations. (A, CSU-GE)

## 6 STRUCTURE OF AMERICAN SIGN LANGUAGE

3 units, 3 lecture hours
PREREQUISTTE: American Sign Language 4 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Examination of the parts of a sign; building words in American Sign Language; sentence structure (questions, statements, relative clauses, etc.) the meaning and issue of iconicity; organization of sentences according to old and new information; and the structure of stories. Emphasis in grammatical features of American Sign Language, such as classifiers, verbs modulations and aspects, and the role of facial expression. (A, CSU-GE, UC)

## 7 DEAF HISTORY

## 3 units, 3 lecture hours

PREREQUISTEE: American Sign Language 4 or equivalent. ADVISORY: Eligibility for English 125 or 126 or English as a Second Language 67 and 68 recommended.

Examination of the historical eras of different stages in Deaf people's lives. Emphasis on deafness in historical perspective. (A, CSU-GE, UC, I)

## 8 AMERICAN SIGN LANGUAGE LITERATURE/FOLKLORE

3 units, 3 lecture hours
PREREQUISITE: American Sign Language 4 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Examination of the values, morals and life experiences of the world around Deaf people. A study of American Sign Language literature that has been passed down from one generation to the next by people of the Deaf culture. (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 as a Second Language 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 or two years of high school Armenian or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester Armenian listening, speaking, grammar, writing, reading and vocabulary. (Offered infrequently) (A, CSU-GE, UC, I)

## 3 INTERMEDIATE ARMENIAN

4 units, 3 lecture hours, 2 lab hours
PREREQUISITE: Armenian 2 or equivalent. (Experience using Armenian at home, at work, or aboard.) ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Third semester Armenian listening, speaking, grammar, reading, writing, and vocabulary. (A, CSU-GE, 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 as a Second Language 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 or two years of high school Chinese or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester Chinese listening, speaking, grammar, writing, reading, and vocabulary. (CAN CHIN 4) (A, CSU-GE, UC, I)

## 3 INTERMEDIATE CHINESE

4 units, 3 lecture hours, 2 lab hours
PREREQUISITE: Chinese 2 or three years of high school Chinese, or equivalent (extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Third semester Chinese listening, speaking, grammar, reading, writing and vocabulary. (A, CSU-GE)

## 4 HIGH-INTERMEDIATE CHINESE

4 units, 3 lecture hours, 2 lab hours
PREREQUISITE: Chinese 3 or equivalent (extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Fourth semester Chinese listening, speaking, grammar, reading, writing, and vocabulary. (A, CSU-GE)

## 5 CHINESE SHORT STORIES AND CULTURE

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Chinese 4 or equivalent (extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Advanced Chinese class with emphasis on reading and writing pertaining to Chinese literature and culture. The course will focus on continued development of Chinese development of Chinese language skills and critical analysis of Chinese literature and culture. (A, CSU-GE)

## 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 as a Second Language 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 or two years of high school French or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester French listening, speaking, grammar, reading, writing, and vocabulary. (CAN FREN 4) (A, CSU-GE, UC, I)

## 3 INTERMEDIATE FRENCH

4 units, 3 lecture hours, 2 lab hours, (Formerly French 2A)
prerequisite: French 2 or three years of high school French or equivalent (Extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 or equivalent (Extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 or two years of high school German or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, I)

## 3 INTERMEDIATE GERMAN

4 units, 3 lecture hours, 2 lab hours, (Formerly German 2A)
PREREQUISITE: German 2 or three years of high school German or equivalent (Extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 or three years of high school German or equivalent (Extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Fourth semester German listening, speaking, grammar, reading, writing, and vocabulary. (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 as a Second Language 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, I)

## 2 HIGH-BEGINNING HMONG

4 units, 3 lecture hours, 2 lab hours, (Formerly
Hmong 1B)
PREREQUISITE: Hmong 1 or two years of high school Hmong or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester Hmong listening, speaking, grammar, reading, writing, and vocabulary. (A, CSU-GE, UC, I)

## 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 as a Second Language 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 or two years of high school Japanese or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester Japanese listening, speaking, grammar, writing, reading and vocabulary. (CAN JAPN 4) (A, CSU-GE, UC, I)

## 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 as a Second Language 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 SEQ A) (A, CSU-GE, UC, I)

## 2 HIGH-BEGINNING RUSSIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly Russian 1B)
PREREQUISITE: Russian 1 or two years of high school Russian or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester Russian listening, speaking, grammar, writing, reading, and vocabulary. (CAN RUSS SEQ 4; RUSS 4) (A, CSU-GE, UC, I)

## 3 INTERMEDIATE RUSSIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly
Russian 2A)
PREREQUISITE: Russian 2 or three years of high school Russian or equivalent (Extensive living experience with the language.) ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Third semester Russian listening, speaking, grammar, writing, reading, and vocabulary. (A, CSU-GE, UC, I)

## 4 HIGH-INTERMEDIATE RUSSIAN

4 units, 3 lecture hours, 2 lab hours, (Formerly Russian 2B)
PREREQUISITE: Russian 3 or equivalent (Extensive living experience with the language.). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Fourth semester Russian listening, speaking, grammar, writing, reading, and vocabulary. (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 as a Second Language 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 qualified for or 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 or two years of high school Spanish or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester Spanish listening, speaking, grammar, reading, writing, and vocabulary. Not open to students qualified for or with credit in Spanish 3NS or 4NS. (CAN SPAN 4) (A, CSU-GE, UC, I)

## 3 INTERMEDIATE SPANISH

4 units, 3 lecture hours, 2 lab hours, (Formerly Spanish 2A)
PREREQUISITE: Spanish 2 or three years of high school Spanish or equivalent (Extensive living experience with the language). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Third semester Spanish listening, speaking, grammar, reading, writing, and vocabulary. (CAN SPAN 8) (TCSU SPAN 140, TCSU SEQ B=SPAN 3+4) (A, CSU-GE, UC, I)

## 3NS SPANISH FOR SPANISH SPEAKERS

4 units, 4 lecture hours, 1 lab hour, (Formerly Spanish 21)

PREREQUISITE: Three years of high school Spanish or a basic speaking knowledge of Spanish. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 or 3NS or equivalent (Extensive living experience with the language.). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Fourth semester Spanish listening, speaking, grammar, reading, writing, and vocabulary. (CAN SPAN 10) (TCSU SPAN 140, TCSU SEQ B=SPAN $3+4)($ 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. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 5 THE SHORT STORY: MEXICO, SPAIN, AND THE U.S.

 3 units, 3 lecture hours, 1 hour lab, (Formerly Spanish 3A)PREREQUISITE: Spanish 4 or Spanish 4NS or equivalent (Experience using Spanish at home, work, or abroad). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 or 4NS or equivalent (Experience using Spanish at home, work, or abroad). (Spanish 5 is not a prerequisite to Spanish 6.) ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 or equivalent (Experience using Spanish at home, work, or abroad).

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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-GE, UC, I)

## 8 ADVANCED SPANISH CONVERSATION

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Spanish 4 or 4NS or equivalent (Experience using Spanish at home, work, or abroad).

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)

## 9 BUSINESS SPANISH

3 units, 3 lecture hours, 1 lab hour
PREREQUISITE: Spanish 4 or Spanish 4NS, or equivalent (extensive living experience with the language.). ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended; Spanish 7 and Business Administration 10 recommended.

A Spanish business and culture course providing the student with the vocabulary and discourse skills necessary to function effectively in a Spanish speaking commercial environment. The course will develop the student's geographic literacy and cultural understanding of Latin America and will include translation and interpretation activities, cross-cultural communication skills, and case study analysis. (A, CSU)

10 MANY MEXICOS: A CULTURAL OVERVIEW
1 unit, 1 lecture hour
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Culture of modern Mexico and its roots in pre-Columbian civilization. Designed for students enrolled in the Summer-in-Mexico Program. (A, CSU)

## 11 COSTA RICA: A CULTURAL OVERVIEW

1 unit, 1 lecture hour
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Culture of modern Costa Rica and its roots in pre-Columbian civilization. Designed for students enrolled in the Summer in Costa Rica Program. (A, CSU)

## 12 SPAIN: A CULTURAL OVERVIEW

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 125 or English as a Second Language 67 and 68 recommended.

Cultural overview of modern Spanish Speaking countries and their roots in pre-Hispanic civilization. Designed for students enrolled in the Summer Study Abroad Program. (A, CSU-GE)

## 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 as a Second Language 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 or two years of high school Swahili or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Second semester Swahili: listening, speaking, grammar, reading, writing, comprehension, and vocabulary. (A, CSU-GE, UC, I)

## FRENCH SEE FOREIGN LANGUAGES

## GEOGRAPHY (GEOG)

## 1 PHYSICAL GEOGRAPHY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 67 and 68 recommended.

The relationship between the cultural environment and the physical environment. Topics include language, religion, politics, population, economics, and urbanization. (CAN GEOG 2) (TCSU GEOG 120) (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 as a Second Language 67 and 68 recommended.

Analysis of the spatial organization of people, places, and environments on the earth's surface. Covers Europe, the post-Soviet region, Asia, and Africa. Explores interconnections between physical setting, 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 as a Second Language 67 and 68 recommended.

Analysis of the spatial organization of people, places, and environments on the earth's surface. Covers the Americas, Australia, New Zealand, and the Pacific Islands. Explores interconnections between physical setting, 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 and Mathematics 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)

## 20 GEOGRAPHY OF CALIFORNIA

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 125 or English as a Second Language 67 and 68 recommended.

California's physical, cultural, and regional elements. The physical geographic base includes: location; geological evolution; geomorphic provinces, natural hazards, and resources; climate, water resources, vegetation, and soils. Historically developed cultural themes include: Native American and Hispanic origins; migration patterns and settlements; population growth and ethnic diversity; land use and economic activities; and Pacific Rim connections. Human-environment interactions and issues are considered throughout. (A, CSU-GE, UC, I)

## 30 TOPICS IN GEOGRAPHY

1-4 units, 1-3 lecture hours, 0-9 lab hours, (Repeats
=3)
ADVISORY: Eligibility for English 125 and 125 or English as a Second Language 67 and 68 recommended.

Examination of topics, current trends, and/or issues in the subdisciplines of Geography not covered by regular catalog offerings. Course content and unit credit to be determined by faculty. May be offered in seminar, lecture, laboratory, and/or field studies format. Recommended preparation varies with topic. (A, CSU, UC approved as a variable topic; evaluation completed by individual campuses after admission.)

## GEOLOGY (GEOL)

## 1 PHYSICAL GEOLOGY

4 units, 3 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduction to the principles and unifying concepts of earth science including geologictime, formation and internal structure of the Earth, plate tectonics, rock and mineral identification, weathering processes, landforms, earthquakes, volcanic activity, flooding, and groundwater resources. Laboratory exercises will include rock and mineral identification, and interpretation of topographic and geologic maps. Optional fieldtrips to classic geologic locations. (CAN GEOL 2) (A, CSU-GE, UC, I)

## 2 HISTORICAL GEOLOGY

3 units, 3 lecture hours, (Spring)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduction to Earth's history using geologic dating techniques, plate tectonics, stratigraphy and the processes that have shaped the global environment. Fossil evidence for the origin and evolution of life, natural selection, and environmental change in shaping both ancient and modern living communities are also presented. Emphasis will be given to North American paleogeography and tectonics. Optional field trips. (CAN GEOL 8) (A, CSU-GE, UC, I)

## 4 GEOLOGY OF CALIFORNIA

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 125 or English as a Second Language 67 and 68 recommended.

Introduction to the geologic setting and evolution of California using the concepts of plate tectonics, stratigraphy, and processes that have shaped the landscape. Emphasis on processes that have and are still shaping the landscape, including volcanism, earthquakes, and erosion. Optional field trips. (A, CSU-GE, UC, I)

## 5 INTRODUCTION TO OCEANOGRAPHY

## 3 units, 3 lecture hours

ADVISORY: Eligibility for English 125 and 125 or English as a Second Language 67 and 68 recommended.

Introduction to the study of water on earth with an emphasis on physical oceanography. Topics include ocean and shoreline processes, plate tectonics, sea floor morphology, types and distribution of seafloor sediments, ocean sediment transport, ocean chemistry, ocean currents, marine resources, and environmental concerns. Optional field trips. (A, CSU-GE, UC, I)

## 9 INTRODUCTION TO EARTH SCIENCE

3 units, 2 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Introduction to the earth sciences with an emphasis on basic topics and principles in geology, oceanography, meteorology, and astronomy. Field trips required. For transfer Liberal Studies Major students. (A, CSU, UC)

## 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 as a Second Language 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 as a Second Language 67 and 68 and Mathematics 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)

## 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 as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 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: Graphic Communications 15. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 101 recommended. Graphic Communications 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

1-8 units, (Repeats = 2), (Formerly Printing
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 graphic

## 270 Graphic Communications

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 8 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 as a Second Language 67 and 68 and Mathematics 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)

## 22 MULTIMEDIA 1

4 units, 3 lecture hours, 3 lab hours, (Repeats = 3)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 and Graphic Communications 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: Graphic Communications 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 as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 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)

## 27 DIGITAL VIDEO PRODUCTION

4 units, 3 lecture hours, 3 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 as a Second Language 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 and Graphic
Communications 39)
PREREQUISITE: Graphic Communications 20. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 and Graphic Communications 40)
PREREQUISITE: Graphic Communications 39A and Art 39B. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 recommended.

Communication theory, organization and delivery methods. Creating presentation materials with computer, video, and photographic techniques. (A, CSU)

## GUIDANCE STUDIES

SEE COUNSELING

## HEALTH INFORMATION TECHNOLOGY (ніт) 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 as a Second Language 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 as a Second Language 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: Computer Information Technology 15 and Health Information Technology 1. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

History and development of quality improvement efforts in health care. Quality assessment techniques, medical staff organization and peer review, utilization review, and risk management. Roles and responsibilities of individuals involved in quality improvement. Software tools for quality improvement, databases and spreadsheets. (A, CSU)

## 4 DISEASE PROCESS

3 units, 3 lecture hours
PREREQUISITE: Biology 5 .
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 as a Second Language 67 and 68 recommended.

Review of coding systems used in health care, e.g., ICD-9-CM, DSM, SNOMED, RBRVS, and ICD-0. 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 as a Second Language 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, (Pass/No Pass), (Repeats $=3$ )
PREREQUISITE: Health Information Technology 3 and 5. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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
PREREQUISITE: Computer Information Technology 15 and Health Information Technology 1. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 272 Health Information Technology

## 10 MEDICAL TERMINOLOGY

3 units, 3 lecture hours, (Formerly Medical Record Technology 10)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 125 and 126 or English as a Second Language 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
PREREQUSITE: Health Information Technology 1. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

1-8 units, (Repeats $=2$ )
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 8 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

HEALTH SCIENCE (HLтн)

## 1 CONTEMPORARY HEALTH ISSUES

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

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 67 and 68 recommended.

Basic concepts and skills necessary to give first aid (including cardiopulmonary resuscitation). Satisfies the requirements of the American Red Cross for certification in Adult, Child and Infant Cardiopulmonary Resuscitation and Basic First Aid. (CAN KINE/PE 8) (A, CSU, UC)

## HISTORY (HIST)

## 1 WESTERN CIVILIZATION TO 1648

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 in the college catalog.

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. In addition, Honors sections take a greater cross-disciplinary perspective, critically evaluate issues and controversies in historiography, 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 as a Second Language 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 the 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, and place greater emphasis on the use of history in understanding the modern world. (CAN HIST 4) (A, CSU-GE, UC, I)

## 3 HISTORY OF ANCIENT ROME

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The history, politics, social life, literature, art, architecture, religion and archaeology of Rome from the foundation of the city to the early Byzantine period. (A, CSU, UC)

## 11 HISTORY OF THE UNITED STATES TO 1877

3 units, 3 lecture hours
ADVISORY: Eligibility for English 1A recommended.
Political, social, and economic development from the colonial period through the Reconstruction Era. (CAN HIST 8) (A, CSU-GE, UC, I)

## 12 HISTORY OF THE UNITED STATES SINCE 1877

3 units, 3 lecture hours
ADVISORY: Eligibility for English 1A recommended.
Political, social and economic development since Reconstruction Era; the US as a world power. Satisfies the US history requirement for BA degree. (CAN HIST 10) (A, CSU-GE, UC, I)

## 15 HISTORY OF THE BRITISH ISLES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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. (A, CSU, UC)

## 22 HISTORY OF AMERICAN WOMEN

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Women in American history: social, political, and economic actions and reactions of American women; racial, ethnic, religious, geographic, and class differences. (A, CSU-GE, UC, I)

## 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 as a Second Language 67 and 68 recommended.

A social, economic and political survey of Mexican history from the colonial (1521) to the contemporary period (2000's). (A, CSU-GE, UC, I)

## 30 CALIFORNIA HISTORY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Growth and development of California politically, economically, and culturally from 1523 to the present, emphasizing 20th century issues. (A, CSU, UC)

## 34 HISTORY OF AMERICAN CIVIL RIGHTS MOVEMENT

 1954-19693 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Based on the civil rights struggle in contemporary America. Legal, moral, ethical, religious and humanistic foundations of the Movement. Nature and forms of discrimination, segregation and oppression. Enforcement and protection of human and civil rights in the United States. (A, CSU, UC)

## HMONG see foreign languages

## HOME ECONOMICS (HEC)

## 7 INTERIOR DESIGN

3 units, 3 lecture hours, 1 lab hour, (Formerly Home Economics 20)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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)

## 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 as a Second Language 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, labeling, simple testing, and evaluation of performance. Hands-on experience testing fiber characteristics. Appropriate for students in fashion merchandising, apparel construction, and interior design, as well as for all consumers who wear and care for apparel and furnishings. (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 as a Second Language 67 and 68 and Mathematics 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

2 units, 6 lab hours, (Repeats $=3$ )
PREREQUISITE: Home Economics 24 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Develop advanced skills in construction of apparel or home furnishings including custom couture techniques for seam, seam finishes, interfacings, hems, collars, waistbands, pockets, and zippers; use special fabrics such as plaids, laces, sheers, and pile utilize; methods of individualizing clothing OR home fashions with structural and applied designs such as piping, fringe, quilting, or appliqué. Construction of two or more projects. (A, CSU)

## 30 ETHNIC DRESS

3 units, 3 lecture hours, (Repeats $=2$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

The national costume in various cultures as reflected by apparel, accessories, and textiles. Examines geographic, sociological, psychological, economic, political, and technological factors affecting the development of cloth and clothing. Influences of various cultural customs and costumes on contemporary western fashion. (A, CSU, UC approved as variable topics; evaluation completed by individual campuses after admission.)

## HONORS (HONORS)

## ACCOUNTING 4AH, HONORS FINANCIAL ACCOUNTING

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: Eligibility for English 125 and 126 or ESL 67 and 68 and Math 101 recommended. Enrolled or previously completed Computer Information Technology 12 or 15. Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors Program listing in the college catalog.

Explores what financial accounting is, why it is important, and how it is used by investors and creditors to make decisions. Covers the accounting information system and the recording and reporting of business transactions with a focus on the accounting cycle, the application of generally accepted
accounting principles, the classified financial statements, and statement analysis. Includes issues relating to asset, liability, and equity valuation, revenue and expense recognition, cash flow, internal controls and ethics. Honors program will require additional analysis of subject material involving research and presentations. (A, CSU)

## 4BH HONORS MANAGERIAL ACCOUNTING

4 units, 4 lecture hours, 1 lab hour
PREREQUISITE: Accounting 4A or 4AH. ADVISORY: Meet the requirements for consideration for acceptance into the Honors Program. See Honors Program listing in the college catalog.

Examination of how managers use accounting information in decisionmaking, planning, directing operations, and controlling. Focus on cost terms and concepts, cost behavior, cost structure, and cost-volume-profit analysis. Examination of profit planning, standard costs, operations and capital budgeting, cost control, and accounting for costs in manufacturing organizations. Honors program will require additional analysis of subject material involving research and presentations. (A, CSU)

## 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, 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. (CAN ANTH 4) (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 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. (CAN ART 2) (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 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. (CAN ART 4) (A, CSU-GE, UC, I)

## BIOLOGY 1H, HONORS PRINCIPLES OF BIOLOGY

4 units, 3 lecture hours, 2 lab hours, (Formerly Honors 1B)
PREREQUISITE: Mathematics 103. ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Introduction to the principles and unifying concepts of life science including the chemical basis of life, cell structure and function, genetics and principles of inheritance, biological classification and diversity, and ecology, with evolution as the unifying theme. Applications of the above topics to human health and environmental issues are stressed. Field trips, guest speakers, literature and scientific research, use of technology, and student presentations are included in this honors level course. Fulfills prerequisite for Biology 4, 6, 7, 20, 24, and 31. (CAN BIOL 2) (A, CSU-GE, UC, I)

## BUSINESS ADMINISTRATION 10H, HONORS INTRODUCTION TO BUSINESS

## 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.

Asurvey in business providing a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. Demonstrates how these influences impact the primary areas of business including: organizational structure and design; leadership, human resource management, and organized labor practices; marketing; organizational communication; technology; and entrepreneurship; and legal, accounting, and financial practices; and therefore affect a business' ability to achieve its organizational goals in the U.S. economic system with enrichment and service learning activities and linkages to a Business Economics Honors colloquium. (A, CSU, UC)

## 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
PREREQUISITE: Mathematics 103. 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)

## ECONOMICS 1BH, HONORS INTRODUCTION TO MICROECONOMICS

3 units, 3 lecture hours
PREREQUISITE: Mathematics 103. ADVISORY: 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-GE, UC, I)

## ENGLISH 1AH, HONORS READING AND COMPOSITION

4 units, 4 lecture hours, (Formerly Honors 1E)
PREREQUISITE: A "credit" grade in English 125 or English as a Second Language 67, and English 126 or English as a Second Language 68 or appropriate score on the reading and writing sections of the placement test. 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: 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. (CAN ENGL 4) (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-GE, UC, I)

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

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

1 unit, 1 lecture hour
COREQUISITE: Meet the qualifications for acceptance into the Honors Program. 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, UC approved as variable topics; evaluation completed by individual campuses after admission.)

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

1 unit, 1 lecture hour
COREQUISITE: Meet the qualifications for acceptance into the Honors Program. Philosophy 1AH, History 1H or 2H, Art 5H or 6H, or English 1BH or 3H. 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, UC approved as variable topics; evaluation completed by individual campuses after admission.)

## HONORS 1C, HONORS HUMANITIES COLLOQUIUM: THE RENAISSANCE TO POSTMODERNISM

1 unit, 1 lecture hour
COREQUISITE: Meet the qualifications for acceptance into the Honors Program. Philosophy 1AH, History 1H or 2H, Art 5H or 6H, or English 1BH or 3H. 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, UC approved as variable topics; evaluation completed by individual campuses after admission.)

## HONORS 1D, HONORS BUSINESS AND ECONOMICS COLLOQUIUM: THE LOCAL ECONOMY AND AGRIBUSINESS

1 unit, 1 lecture hour
COREQUISITE: Meet the qualifications for acceptance into the Honors Program. Economics 1AH or 1BH, Business Administration 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
COREQUISITE: Meet the qualifications for acceptance into the Honors Program. Anthropology 2H or Psychology 2H. 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, (Repeats =1)
COREQUISITE: Meet the qualifications for acceptance into the Honors Program and enrollment in the Honors Program. 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
COREQUISITE: Meet the qualifications for acceptance into the Honors Program and enrollment in the Honors Program. 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 <br> 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)

## HUMANITIES 10H, HONORS CLASSICAL HUMANITIES

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.

An integrated study of the art, music, literature, philosophy, and drama of Western Civilization from the early periods through the Renaissance. Honors sections may cover additional subject matter such as more extensive reading and research as well as additional writing. (A, CSU, UC)

## HUMANITIES 11H, HONORS MODERN HUMANITIES

3 units, 3 lecture hours
PREREQUISITE: English 1A. Humanities 10 is not a prerequisite for this course. ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in college catalog.

An integrated study of the art, music, literature, philosophy, and drama of Western Civilization from the seventeenth century to the present. Honors sections may cover additional subject matter such as more extensive reading and research as well as additional writing. (A, CSU, UC)

## PHILOSOPHY 1AH, HONORS THEORIES OF KNOWLEDGE AND REALITY

3 units, 3 lecture hours, (Formerly Honors 1P)
PREREQUISITE: English 1A. 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, 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. (CAN PHIL 2) (A, CSU-GE, UC, I)

## POLITICAL SCIENCE 2 H , HONORS AMERICAN GOVERNMENT

ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Analysis of political and judicial institutions and processes, political ideology, political economy, the role of the media, civil rights, California state and local government. Satisfies the U.S. Constitution requirements and the national, state and local government requirements for transfer students. In addition Honors sections investigate in detail the original design of the American political system, including the values imbued in the Constitution, the construction of the federal system, and the legal responsibilities of the major actors, and contrast those features with the current conditions in American politics. Emphasis is given to explaining the differences between the two situations, and requiring students to suggest how access to the present system can be gained and used. (A, CSU-GE, UC)

## 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. (CAN PSY 2) (A, CSU-GE, UC, I)

## HUMAN SERVICES (HS)

## 10 INTRODUCTION TO AGING STUDIES

3 units, 3 lecture hours, (See also Sociology 10)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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-GE, 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 as a Second Language 67 and 68 recommended.

Techniques to establish optimal performance and the well-being of the helping professional. (A, CSU)

## 19A WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-8 units, $($ Repeats $=2)$
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 8 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

1-8 units, 1 lecture hour, (Repeats = 2)
PREREQUISITE: Human Services 42 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 8 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 SOCIAL WELFARE

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Social, economic, political, philosophical and historical factors in the development of social welfare and social work in western society. (TCSU SW 110) (A, CSU)

## 24 FUNDAMENTALS OF INTERVIEWING AND COUNSELING

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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: Human Services 20. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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)

40 ALCOHOL AND DRUG ABUSE COUNSELING: LAW AND ETHICS, PREVENTION, EDUCATION, OUTREACH AND REFERRAL
3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Elementary techniques in the treatment of alcohol dependency for the individual and the family; student participation in counseling techniques in a group study experience. Bookkeeping, referral, consultation, and follow-up skills. (A, CSU)

## 44 DRUG USE: PHYSICAL AND PSYCHOLOGICAL EFFECTS

## 3 units, 3 lecture hours

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 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 English as a Second Language 67 and 68 recommended.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics include language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity, education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

## 7H HONORS INTRODUCTION TO BRITISH CULTURE

3 units, 3 lecture hours, (See also Cultural Studies
7H)
ADVISORY: Meet the qualifications for consideration for acceptance in the Honors Program recommended. See Honors program listing in the college catalog.

An examination of British society and culture, including historical roots as well as contemporary institutions and practices. Topics include language, geography, religion, transportation, economics, politics, mass media, family patterns, immigration and ethnic diversity, education, health care, theater, literature, music, art and architecture. Designed primarily for students in the Semester in England Program. (A, CSU)

## 10 CLASSICAL HUMANITIES

3 units, 3 lecture hours
PREREQUISITE: English 1A.
An integrated study of the art, music, literature, philosophy, and drama of Western civilization from the Greeks through the Renaissance. (A, CSU-GE, UC, I)

## 10H HONORS CLASSICAL HUMANITIES

## 3 units, 3 lecture hours

PREREQUISTTE: English 1A. ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

An integrated study of the art, music, literature, philosophy, and drama of Western Civilization from the early periods through the Renaissance. Honors sections may cover additional subject matter such as more extensive reading and research as well as additional writing. (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)

## 11H HONORS MODERN HUMANITIES

3 units, 3 lecture hours
PREREQUISITE: English 1A. Humanities 10 is not a prerequisite for this course. ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in college catalog.

An integrated study of the art, music, literature, philosophy, and drama of Western Civilization from the seventeenth century to the present. Honors sections may cover additional subject matter such as more extensive reading and research as well as additional writing. (A, CSU-GE, UC, I)

## INDIVIDUAL STUDY

## 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 dean. (A, CSU, UC approved as variable topics; evaluation completed by individual campuses after admission.)

## INDUSTRIAL EDUCATION

SEE APPLIED TECHNOLOGY (AT)

## INFORMATION SYSTEMS

SEE COMPUTER INFORMATION TECHNOLOGY (CIT)

## JAPANESE SEE FOREIGN LANGUAGE

## JOURNALISM (JOURN)

## 1 INTRODUCTION TO MASS COMMUNICATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

This course will study the social, economic, political, cultural, and behavioral impacts of mass media both nationally and globally. From books through the internet, and from pop culture to advertising and public relations, the course closely examines historical and technological developments that have shaped the structures and practices of mass media as well as emerging trends in mass communication, audiences, and technologies. (CAN JOUR 4) (A, CSU, UC)

## 2 INTERPRETING CURRENT EVENTS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Discussion and analysis of important national and international events. Readings from newspapers, magazines and on-line news sources 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)

## 4 WRITING FOR THE COLLEGE NEWSPAPER

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3)
ADVISORY: Eligibility for English 1A recommended, Journalism 3 (can be concurrent) or equivalent.

Writing articles for the school newspaper; writing for other journalism publications on a regular schedule throughout the semester; editing articles for the publications; gathering information from a variety of sources; synthesizing a story; preparing information for dissemination; handling ethical and legal aspects of communication. (A, CSU)

## 5 NEWSPAPER PRODUCTION

3 units, 2 lecture hours, 3 lab hours, (Repeats = 3)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended. For photographers, demonstrated ability to use a camera. For artists and designers, demonstrated ability in the field of art or graphics.

Organize and publish a student newspaper on a regular schedule throughout the semester; participate in bi-weekly budget meetings for college newspaper content; edit news stories written by students in Journalism 4; produce accompanying photography and graphics; complete newspaper and advertising layout and design. (A, CSU)

## 6 MAGAZINE PRODUCTION

3 units, 2 lecture hours, 3 lab hours, (Repeats =1)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended. For photographers, demonstrated ability to use a camera. For artists and designers, demonstrated ability in the field of art or graphics.

Introduction to magazine production with emphasis on developing, researching, interviewing and writing non-fiction articles. Includes complete presentation of stories, photos, design and layout. Students will edit and publish a magazine that can be adaptable for on-line publication. (A, CSU)

## 9 FEATURE WRITING

3 units, 2 lecture hours, 3 lab hours
ADVISORY: Journalism 3 or concurrent enrollment, and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Fundamentals in feature writing for magazines, newspapers and on-line publications. Special emphasis on profile and interpretative news features. Provides practical experience in interview and in-depth research techniques. (A, CSU)

## 15 BASIC EDITING FOR JOURNALISTS

2 units, 2 lecture hours
ADVISORY: Journalism 3 or concurrent enrollment, and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Skills building course for journalism students covers parts of speech, word use, sentence construction, spelling, punctuation, and principles of effective writing as it applies to journalistic proofreading and copyediting; emphasizes the set of rules for understanding how language works; and communicating clearly, concisely, and coherently. (A, CSU)

## 16 RACE, GENDER AND THE MEDIA

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

This course will critically examine the role of media in enabling, facilitating, or challenging the social construction of race and gender in our society. Using a variety of entertainment and news content in print, electronic, and the internet, we will and consider how the media influence everyday notion of race and gender and review the historical roles news and entertainment media have played in creating awareness about the experiences of women and ethnic minorities. (A, CSU)

## LABORATORY ASSISTANT

## 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)

## LATIN AMERICAN STUDIES (LAST)

## 11 LATIN AMERICAN COLLOQUIUM

1 unit, 1 lecture hour
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended. An interdisciplinary study of selected Latin American topics. Whenever appropriate, the course will be taught by a team of instructors representing two or more disciplines. It will include discussions, readings, writing, projects, field trips and guest speakers. (A, CSU)

## LIBRARY SKILLS (LibskL)

## 1 INFORMATION COMPETENCY/RESEARCH SKILLS

1 unit, 1 lecture hour (Repeats = 1)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 2 INFORMATION AND COMPUTER LITERACY

3 units, 3 lecture hours, (Repeats $=1$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

In-depth research skills for college students, including the concept of information, its organization, location, evaluation, and use. General computer/technology concepts, word processing, email, spreadsheets, and navigating the World Wide Web. Fulfills the computer literacy graduation requirement. (A, CSU)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

$1-8$ units, 1 lecture hour, (Repeats = 2 )
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 the occupational field. Learning objectives established specific to the particular occupational field. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 8 units per semester, 16 units total. May be repeated up to three times for not more than 16 units total. (A, CSU)

## LIBRARY TECHNOLOGY (LITEC)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-8 units, (Repeats $=2$ )
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 speciicic majors.

Practical work experience in any of four different types of librariesacademic, 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 8 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 as a Second Language 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, 55, and Computer Information Technology 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-ROMs, DVDs, scanners, digital cameras, peripherals, and telecommunications. (A, CSU)

## 57 REFERENCE: PRINT AND ONLINE SOURCES

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 (LING)

## 4 STRUCTURE OF ENGLISH

3 units, 3 lecture hours, (See also English 4)
PREREQUISITE: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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)

## MANUFACTURING MECHANIC (MFgmctc)

## 351 INTRODUCTION TO MANUFACTURING

0 units, 9 lecture hours, (1 week), (Pass/No Pass), (Repeats = 3)
PREREQUISITE: None.
Career in manufacturing, local job market, pay scales; basic mechanical skills required throughout the industrial areas; safety and safe working environment will be stressed.

## 352A TRADE MATHEMATICS

0 units, 9 lecture hours, (2 weeks), (Pass/No Pass),
(Repeats = 3)
PREREQUISITE: None.
Industrial technology and trade-related math. The use of metric system of weights and measures, arithmetic application of integers and fractions, along with ruler and caliper readings commonly used in manufacturing trades.

## 352B PROGRAMMABLE CONTROLLERS

0 units, 2.25 lecture hours, 6.75 lab hours, (2 weeks),
(Pass/No Pass), (Repeats = 3)
PREREQUISITE: None.
An introduction to the equipment and peripheral devices used to interface with industrial controlling devices.

## 352C JOB PREPARATION

0 units, 2.25 lecture hours, 6.75 lab hours, (2 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 352B.
Preparing resumes, portfolios, and improving employment-seeking skills.

## 284 Manufacturing Mechanic

## 352DTECHNICAL REPORT WRITING

0 units, 2.25 lecture hours, 6.75 lab hours, (2 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 352B.
Identify and write various types of reports; analyze data, and record information that are associated with production work.

## 353A FLUID POWER FUNDAMENTALS

0 units, 9 lecture hours, (1 week), (Pass/No Pass),
(Repeats = 3)
PREREQUISITE: None.
Fundamentals of fluid power; physics principles pertaining to fluid power; various differences in hydraulics and pneumatics; characteristics of liquids and gases; how and why the fluid power industry was started.

## 353B PNEUMATIC FUNDAMENTALS

0 units, 2.25 lecture hours, 6.75 lab hours, (2 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 353A.
Theory and application in the operation, service, and function of hydraulic systems including design and application of systems in industrial environments.

## 353C HYDRAULIC FUNDAMENTALS

0 units, 2.25 lecture hours, 6.75 lab hours, (2 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 353A.
Theory and application in the operation, service, and function of hydraulic systems including design and application of systems in industrial environments.

## 354A POWER TRANSMISSION

0 units, 9 lecture hours, (1 week), (Pass/No Pass),
(Repeats = 3)
PREREQUISITE: None.
Study and application of power transmission through chains, belts, gear trains and augers.

## 354BWELDING FUNDAMENTALS

0 units, 1.5 lecture hours, 13.5 lab hours, ( 3 weeks), (Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 354A.
Basic metallurgy and properties of metals, oxyacetylene welding and cutting processes, arc welding, and safety within the work environment.

## 354C ELECTRICAL FUNDAMENTALS

0 units, 1.5 lecture hours, 13.5 lab hours, ( 3 weeks),
(Pass/No Pass), (Repeats = 3)
ADVISORY: Completion of Manufacturing Mechanic CTC 354A.
Introduction to the basics of electrical fundamentals, AC circuitry, as well as an instruction to motor control.

## MARKETING (мkTG)

## 10 PRINCIPLES OF MARKETING

3 units, 3 lecture hours, (See also Fashion
Merchandising 10)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68, and Mathematics 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
1-8 units, (Repeats $=2$ )
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 8 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: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 Mathematics 4)
PREREQUISITE: Mathematics 102 and Mathematics 103 or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 4B PRE-CALCULUS

4 units, 4 lecture hours
PREREQUISITE: Mathematics 4A or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Equations and inequities; polynomial, rational, exponential, trigonometric functions; graphing, analytic geometry, and conic sections; vectors; matrices; systems of equations; the binomial theorem, sequences, and series. (CAN MATH 16) (A, CSU-GE, UC, I)

## 5A MATHEMATICAL ANALYSIS I

5 units, 5 lecture hours
PREREQUISITE: Mathematics 4 B or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Mathematics 5A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Mathematics 5B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Mathematics 6 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 I

3 units, 3 lecture hours
PREREQUISITE: Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. Designed for elementary credential candidates. (CAN MATH 4) (A, CSU-GE, UC, I)

## 10B STRUCTURE AND CONCEPTS IN MATHEMATICS II

3 units, 3 lecture hours
PREREQUISITE: Mathematics 10A and Mathematics 102, or equivlent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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, (Formerly Mathematics 31)
PREREQUISITE: Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Mathematics 5A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Matrices and linear transformations, vector spaces, determinants, eigenvalues and eigenvectors. (CAN MATH 26) (A, CSU-GE, UC, I)

## 42 STATISTICS FOR THE BEHAVIORAL SCIENCES

4 units, 4 lecture hours, (See also Psychology 42)
PREREQUISITE: Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 45 CONTEMPORARY MATHEMATICS

3 units, 3 lecture hours
PREREQUISITE: Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An introduction to mathematical problem solving: statistics, social choice, and management science. (CAN MATH 2) (A, CSU-GE)

## 48A PRE-CALCULUS WORKSHOP

1 unit, 4 lab hours
PREREQUISITE: Mathematics 4 B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Methodology of solving math-based real-world application problems from pre-calculus 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 Mathematics 4B. (A, CSU)

## 48B CALCULUS WORKSHOP I

1 unit,, 4 lab hours
PREREQUISITE: Mathematics 5A or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Methodology of solving math-based real-world application problems from first semester calculus 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 Mathematics 5A. (A, CSU)

## 48C CALCULUS WORKSHOP II

1 unit,, 4 lab hours
PREREQUISITE: Mathematics 5B or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Methodology of solving math-based real-world application problems from the second semester calculus 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 Mathematics 5B. (A, CSU)

## 101 ELEMENTARY ALGEBRA

5 units, 5 lecture hours, (Formerly Mathematics 1)
PREREQUISITE: Mathematics 255 or designated math placement. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Mathematics 2)
PREREQUISITE: Mathematics 101 or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Angles; parallel lines; congruent and similar triangles; 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

5 units, 5 lecture hours, (Formerly Mathematics 3)
PREREQUISITE: Mathematics 101 or the equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Mathematics 50)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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.

## 255 PRE-ALGEBRA

5 units, 5 lecture hours, (Formerly Mathematics 55)
PREREQUISITE: Mathematics 260D or a test score to place out of or above Mathematics 260D. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Designed to increase the student success in Elementary Algebra; ideal for students who have math anxiety or who do not feel ready for the fast pace of Mathematics 101. And introduction to selected topics that are often difficult for Mathematics 101 students (e.g., signed numbers, simplification, equations, word problems, factoring, and graphing).

## 260A ARITHMETIC REVIEW: WHOLE NUMBERS

2 units, 5 lecture hours, ( 6 weeks), (Pass/No Pass), (Formerly Mathematics 60A)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

2 units, 5 lecture hours, ( 6 weeks), (Pass/No Pass), (Formerly Mathematics 60B)
PREREQUISITE: Mathematics 260A or appropriate placement score. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Review of arithmetic involving computing with fractions. Emphasis on word problems and applications of fractions.

## 260C ARITHMETIC REVIEW: DECIMALS

2 units, 5 lecture hours, ( 6 weeks), (Pass/No Pass), (Formerly Mathematics 60C)
PREREQUISITE: Mathematics 260B or appropriate placement score. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Review of arithmetic involving computing with decimals. Emphasis on word problems and applications of decimals.

## 260D ARITHMETIC REVIEW: RATIOS, PROPORTIONS, PERCENTS, AND GEOMETRY

2 units, 5 lecture hours, (6 weeks), (Pass/No Pass), (Formerly Mathematics 60D)
PREREQUISITE: Mathematics 260C or appropriate placement score. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Review of arithmetic involving ration, proportion, and percents. Introduction to basic geometry topics. Emphasis on word problems.

## 277 ARITHMETIC FOR THE LEARNING DISABLED

2 units, 6 lab hours, (Pass/No Pass), (Repeats = 3), (Formerly Mathematics 77)
PREREQUISITE: Students must have a diagnosed verifiable disability.

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 severe disabilities and/or learning disabilities.

## MEDICAL ASSISTING (ma)

## 1 LEGAL AND ETHICAL CONCEPTS

2 units, 2 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 67 and 68 and Mathematics 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 5 or equivalent recommended. Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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 as a Second Language 67 and 68 and Mathematics 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)

## 6 A CLINICAL TRAINING

3 units, 3 lecture hours, (Formerly Medical Assisting 60A)
ADVISORY: Biology 5 or equivalent recommended. Eligibility for English 125 and 126 or English as a Second Language 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
1-8 units, (Repeats = 2)
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 8 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.
Institutional knowledge of the Army profession and introduction to a wide range of technical and tactical skills. Emphasizes the officer's role in the Army and offers tools for professional success. (A, CSU, UC)

## 12 BASIC LEADERSHIP AND MANAGEMENT

2 units, 2 lecture hours
PREREQUISITE: None.
Principles of leadership and resource management; mission planning and presentation of goals to groups. Emphasizes U.S. Army posture versus current threats faced. (A, CSU, UC)

## 20 ROTC LEADERSHIP TRAINING COURSE (LTC)

3 units, 4.5 lecture hours, 27 lab hours, (4 weeks), (Pass/No Pass), (Open Entry/Open Exit)
PREREQUISITE: Eligibility criteria as set forth in US Army Regulation 145-1.

Summer training program at an active army military installation. This is a "no obligation" look at the U.S. Army's basic leadership skills and training overview. Provides credit for the Senior ROTC Basic Course (freshman/sophomore). (A, CSU)

## 21 ROTC LEADERSHIP DEVELOPMENT/ASSESSMENT COURSE (LDAC) <br> 3 units, 3 lecture hours, 18 lab hours, ( 6 weeks), (Pass/No Pass), (Open Entry/Open Exit) PREREQUISITE: Military Science 31 and 32. <br> Summer training course familiarizing students with Army weapons systems, military skills, confidence training, light infantry tactics, and leadership and management techniques. (A, CSU)

## 31 ADVANCED LEADERSHIP AND MANAGEMENT

## 3 Units, 3 Lecture hours

PREREQUISITE: Military Science 20 or prior military service.
Personnel management problems and techniques of motivation as applied to a military environment; techniques and methods of instruction; application of basic military skills; military law. (A, CSU)

## 32 SMALL UNIT LEADERSHIP

3 units, 3 lecture hours
PREREQUISITE: Military Science 31.
Principles of tactics and operations; organization of small units and their employment; field orders and instructions; small unit leadership techniques. (A, CSU)

## 41 ETHICS AND MILITARY PROFESSIONALISM

3 units, 3 lecture hours
PREREQUISITE: Military Science 32 and 51B.
Military professional ethics, military justice, command and staff functions, mission and organization of the U.S. Army and military correspondence. (A, CSU)

## 42 ADVANCED LEADERSHIP TRAINING

3 units, 3 lecture hours
PREREQUISITE: Military Science 41 and 52A.
Focus on transitioning cadets to lieutenants. Topics include responsibility of army officers, army leadership doctrine, and the army promotion system. (A, CSU)

## 50A FRESHMAN LEADERSHIP LABORATORY

1 unit, 3 lab hours, (Repeats = 1)
Practical work to augment classroom instruction by teaching leadership, tactics, and soldier skills. Weekly laboratories plus one field trip each semester. (A, CSU)

## 50B SOPHOMORE LEADERSHIP LABORATORY

1 unit, 3 lab hours, (Repeats = 1)
Practical work to augment classroom instruction by teaching intermediate leadership, tactics, and soldier skills. Weekly laboratories plus one field trip each semester. (A, CSU)

## 51A ROTC JUNIOR LEADERSHIP LAB I

1 unit, 3 lab hours
PREREQUISITE: Military Science 20 or prior military service.
Practical work to augment classroom instruction by teaching leadership, tactics, and soldier skills. Weekly laboratories plus one field trip each semester. (A, CSU)

## 51B ROTC JUNIOR LEADERSHIP LAB II

1 unit, 3 lab hours
PREREQUISITE: Military Science 31 and 51A.
Practical work to augment classroom instruction by teaching intermediate leadership, tactics, and soldier skills. Weekly laboratories plus one field trip each semester. (A, CSU)

## 52A ROTC SENIOR LEADERSHIP LAB I

1 unit, 3 lab hours
PREREQUISITE: Military Science 32 and 51B.
Practical work to augment classroom instruction by teaching leadership, tactics, and soldier skills. Weekly laboratories plus one field trip each semester. (A, CSU)

## 52B ROTC SENIOR LEADERSHIP LAB II

1 unit, 3 lab hours
PREREQUISITE: Military Science 41 and 52A.
Practical work to augment classroom instruction by teaching leadership, tactics, and soldier skills. Weekly laboratories plus one field trip each semester. (A, CSU)

## MUSIC (mus)

For information concerning course requirements for the major or minor, see page 155 .

## THEORY

## 1A MUSIC THEORY I

3 units, 3 lecture hours, (Fall only)
COREQUISITE: (Music majors only) Music 7A. ADVISORY: Music 3 or the ability to read music as determined by testing. Eligibility for English 125 and 126 or English as a Second Language 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)
COREQUISITE: (Music majors only) Music 7A or 7B. ADVISORY: Music 1A. Eligibility for English 125 and 126 or English as a Second Language 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)
COREQUISITE: (Music majors only) Music 7B (if not already completed). ADVISORY: Music 1B. Eligibility for English 125 and 126 or English as a Second Language 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)
COREQUISITE: (Music majors only) Music 2A (if not already completed). ADVISORY: Music 2A. Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 67 and 68 recommended.

Fundamental theory 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)
ADVISORY: Ability to read and notate music. Music 1A or 2 recommended.

Chord, scale, and structural theory relating to the study, performance, and composition of jazz and contemporary music. (A, CSU, UC)

## 5 MIDI MUSIC PRODUCTION

2 units, 2 lecture hours, 2 lab hours, (Spring only) ADVISORY: Ability to read and play simple melodies on a keyboard. 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, (Pass/No Pass)
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, (Pass/No Pass)
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
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)
ADVISORY: Music 2 A 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 as a Second Language 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 as a Second Language 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 basic musical terminology. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Music Literature of western civilization from ancient 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 as a Second Language 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 as a Second Language 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)

## 17 HISTORY OF ROCK

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

This course examines the music of the most important rock artists and groups from the 1950s through the present. The sociological, economic and cultural factors that shaped rock music, as well as the music's influence on popular culture, will also be covered. (A, CSU)

## 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. (A, CSU)

## 10B INTERMEDIATE/ADVANCED JAZZ IMPROVISATION

2 units, 1 lecture hour, 3 lab hours, (Repeats = 3)
PREREQUISITE: Music 10A 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 1A or 3 or the equivalent as determined by testing.

Fundamentals of conducting and score reading; standard patterns and baton technique; practice with records and large and small college ensembles. Designed for the music major and the commercial music student. (A, CSU, UC)

## 20 BEGINNING PIANO: LEVEL I

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 II

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)

## 24 ELEMENTARY VOICE: LEVEL I

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 1),
(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: Own instrument required.
Classical and social guitar playing styles: playing techniques, rhythms, theory, and note reading. Designed for the general student and classroom teacher: Not open to guitarists who read music. (A, 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 four-year 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 <br> (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 <br> (STRING ORCHESTRA) <br> (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 <br> (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)
PREREQUISTTE: Four semesters of any one of the following courses: Music $22,26,29,30,32,34,35,36,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}, 46,47$, 48, 60, 61, 63, 66, 67, 68, 69, 70, 71, 72, 73A, 73B, 73C, 73D, 74A, 74B, 74C, 74D, 75, 76, 77 or 78. ADVISORY: Ability to perform advanced level music recommended.

A continuation of ensemble or advanced applied music courses. Study of large ensemble literature (vocal or instrumental). Audition required. (A, CSU, UC)

## 57 SOLO REPERTOIRE STUDIES I

1 unit, 3 lab hours, (Repeats = 3 )
PREREQUISITE: Four semesters of Music 22, 26, or 29 or the equivalent as determined by audition.

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 or the equivalent, as determined by audition.

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 any of the following courses: Music $22,26,29,30,32,34,35,36,39,40,41,42 \mathrm{~A}, 42 \mathrm{~B}, 42 \mathrm{C}, 42 \mathrm{D}, 46,47,48,60$, $61,63,66,67,68,69,70,71,72,73 \mathrm{~A}, 73 \mathrm{~B}, 73 \mathrm{C}, 73 \mathrm{D}, 74 \mathrm{~A}, 74 \mathrm{~B}, 74 \mathrm{C}, 74 \mathrm{D}$, $75,76,77$, or 78 .

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, 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 20th 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

3 units, 2 lecture hours, 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 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), (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-GE, UC)

## 34 FRESNO CHORALE

2 units, 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 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

2 units, 1 lecture hour, 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 performances required. (A, CSU, UC)

## 39 OPERA AND MUSICAL THEATRE WORKSHOP

2 units, 1 lecture hour, 3 lab hours, (Pass/No Pass),
(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

3 units, 2 lecture hours, 4 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: Ability to perform an instrument or voice at a college level.

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 ENSEMBLE

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)

## 53 LATIN JAZZ WORKSHOP

2 units, 1 lecture hour, 3 lab hours
ADVISORY: Advanced high school jazz ensemble or band experience, or equivalent performance skills recommended.

Rehearsal, study, and performance of jazz-based instrumental music based on Afro-Cuban styles and practice. Participation in concerts and jazz festivals required. (A, CSU)

## 60 SYMPHONIC CHOIR

3 units, 2 lecture hours, 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

3 units, 2 lecture hours, 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) 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) 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

3 units, 2 lecture hours, 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

3 units, 2 lecture hours, 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)

## 90 JAZZ COMPOSER'S WORKSHOP

2 units, 1 lecture hour, 4 lab hours
ADVISORY: Advanced high school jazz ensemble or band experience, or equivalent performance skills recommended.

Performance and analysis of contemporary literature for the jazz ensemble/jazz orchestra, with an emphasis on advanced harmonic and rhythmic pieces. Participation in concerts and festivals required. (A, CSU)

## 91 JAZZ COMPOSER'S ENSEMBLE

2 units, 1 lecture hour, 4 lab hours
ADVISORY: Advanced high school jazz ensemble or band experience, or equivalent performance skills recommended.

Performance of literature for contemporary jazz ensemble/jazz orchestra, with an emphasis on the music of emerging composers. (A, CSU)

## 92 VOCAL JAZZ ENSEMBLE

2 units, 1 lecture hour, 4 lab hours
ADVISORY: Advanced high school vocal experience or equivalent performance skills recommended.

Rehearsal and performance of vocal jazz ensemble literature. Participation in concerts and festivals required. (A, CSU)

## NATIVE AMERICAN STUDIES <br> SEE AMERICAN INDIAN STUDIES

## NATURAL SCIENCE (Natsci)

## 1A INTEGRATED SCIENCE: PHYSICS AND CHEMISTRY

4 units, 3 lecture hours, 3 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 recommended.

Basic concepts of chemistry and physics and their relation to the everyday environment. Includes laboratory and demonstrations with special application to K-6 teachers. Specifically designed to satisfy the requirements of students who intend on transferring to the CSU Liberal Studies Major. (A, CSU)

## 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 as a Second Language 67; Mathematics 101; Biology 20 and 22, or 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, (Pass/No Pass)
PREREQUISITE: Acceptance into the Registered Nursing Program: English 125 or English as a Second Language 67; Mathematics 101; Biology 20 and 22, or 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)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of " C " or better. COREQUISITE: Registered Nursing 4.

Medical-surgical, and gynecological nursing concepts, basic pathology, and related nursing management for adults and geriatric patients. (A, CSU)

## 4 INTERMEDIATE MEDICAL-SURGICAL 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 3.

Medical-surgical, and gynecological nursing of adult patients, including geriatrics; clinical experiences in hospitals and community agencies. (A, CSU)

## 5 PERINATAL 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. (A, CSU)

## 6 PERINATAL NURSING AND ADULT REPRODUCTIVE HEALTH NURSING CLINICAL

2 units, 12 lab hours, ( 9 weeks)
PREREQUISITE: Registered Nursing 1 and 2 with a grade of " C " or better. COREQUISITE: Registered Nursing 5.

Care of maternity, neonatal and gynecological patients in clinical settings. Nursing responsibilities to the family during child-bearing and child-rearing process. Male and female reproductive health disorders and breast disease. (A, CSU)

## 7 ADVANCED MEDICAL-SURGICAL NURSING (A)

2.5 units, 5 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 3 and 4 with a grade of " C " or better. COREQUISITE: Registered Nursing 8.

Advanced medical-surgical theoretical concepts and principles in managing adults with problems related to cardiovascular, hematological, vascular, respiratory, renal and male reproductive systems. (A, CSU)

## 8 ADVANCED MEDICAL-SURGICAL NURSING ADULT (A) CLINICAL

2.5 units, 15 lab hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 3 and 4 with a grade of " C " or better. COREQUISITE: Registered Nursing 7.

Advanced principles and practices in the clinical setting of medi-cal- surgical nursing of adults with problems related to the cardiovascular, hematological, vascular, respiratory, renal and male reproductive system. (A, CSU)

## 9 PSYCHIATRIC AND COMMUNITY MENTAL HEALTH

 NURSING2.5 units, 5 lecture hours, ( 9 weeks)

PREREQUISITE: Registered Nursing 1 and 2 with a grade of "C" or better. COREQUISITE: Registered Nursing 10.

Theoretical concepts comprising a comprehensive overview of functional and dysfunctional human behavior, therapeutic communication, age related problems, treatment modalities, delivery of mental health care services, mental health legislation, and the role and responsibilities of the psychiatric/mental health nurse. (A, CSU)

## 10 PSYCHIATRIC AND COMMUNITY MENTAL HEALTH NURSING 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 organizational communication. Fulfills the computer literacy graduation requirement for Registered Nursing majors only. (A, CSU)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL

1-8 units, (Repeats $=2$ )
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 8 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), (Pass/No Pass),
(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), (Pass/No Pass), (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), (Pass/No Pass), (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)

## 151 PERIOPERATIVE NURSING CLINICAL

1 unit, 4 lab hours, (14 weeks), (Pass/No Pass),
(Repeats $=2$ )
PREREQUISITE: Registered Nurse, or Registered Nursing 3 and 4. COREQUISITE: Registered Nursing 50.

Clinical experience in perioperative registered nursing. Application of concepts of perioperative nursing using the nursing process. Participation in all aspects of delivering perioperative nursing care in a variety of clinical settings. (A)

## 201 NCLEX-RN REVIEW

2 units, 2 lecture hours, (Pass/No Pass),
(Repeats = 2)
COREQUISITE: Registered Nursing 7 or 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 <br> 3 units, 3 lecture hours

PREREQUISITE: Business Administration 20. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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
PREREQUISITE: 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
PREREQUISITE: Paralegal 1.
Estates, trusts, wills, probate procedures, property (real and personal), sales, taxes, formal and informal probate administration. (A, CSU)

## 5 BUSINESS ORGANIZATIONS

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Corporations, partnerships, joint ventures, and sole proprietorships. Legal problems associated with the various forms of business organizations including formation, management, control, securities, capitalization, taxation, reorganization, and dissolution. (A, CSU)

## 6A LITIGATION

3 units, 3 lecture hours, (Fall only)
PREREQUISITE: Paralegal 2B.
Role of the paralegal in the litigation process. Court system and jurisdiction issues, types and forms of pleadings, calendaring pleading, and forms of discovery. (A, CSU)

## 6B LITIGATION

3 units, 3 lecture hours, (Spring only)
PREREQUISITE: Paralegal 6A.
Role of paralegal in the litigation process. Forms of discovery; calendaring discovery; law and motion; trial setting; arbitration; preparation for trial and trial procedures; judgments, post-trial motions and appeals; and provisional remedies. (A, CSU)

## 7 LAW OFFICE PRACTICES

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1 or Paralegal 157.
Principles of law office management and operation to include human relations, general office procedures, and office supervision. Preparation for working in law office environment. (A, CSU)

## 8 TORTS/CONTRACTS

## 3 units, 3 lecture hours

PREREQUISITE: Paralegal 1.
Overview of tort law and contract law doctrines. Basic tort/contract concepts and terminology including negligence, strict liability, intentional and constitutional torts, defenses and immunities, offer and acceptance, consideration, performance and discharge, contract drafting, and contract interpretation. (A, CSU)

## 9 REAL PROPERTY

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Introduction to basic concepts of real property 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 Business \& Technology 140 or equivalent and working knowledge of WordPerfect (5.0, 5.1, 5.2, 6.0 , or 6.1 ) or Business \& Technology 7 and 8 or working knowledge of Word for Windows or Business Technology 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, levying on personal and real property, preparing wage garnishment, claiming exemptions, and issuing and obtaining orders. (A, CSU)

## 16 ENVIRONMENTAL LAW

3 units, 3 lecture hours
PREREQUISITE: Paralegal 1.
Introduction to basic concepts of environmental law including zoning; environmental controls on land use; control of water, air, and noise pollution; nuisances; building regulations; Subdivision Map Act; and California Environmental Quality Act. (A, CSU)

## 17 ADMINISTRATIVE LAW/WORKERS' COMPENSATION

3 units, 3 lecture hours
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

2 units, 2 lecture hours, 1 lab hour, (See also
Business \& Technology 140), (Formerly Paralegal 56)
ADVISORY: Business \& Technology 2 or ability to type 40 words per minute recommended. Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Legal vocabulary, ethics, and law office practices and procedures. Preparation of correspondence and client documents. (A)

## 157 LEGAL DOCUMENT PREPARATION

2 units, 2 lecture hours, 1 lab hour, (Formerly
Paralegal 57)
ADVISORY: Business \& Technology 2 or ability to type 40 words per minute recommended. Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Additional legal vocabulary, ethics, and legal procedures. Preparation of law blanks and court documents (pleadings). (A)

## PHILOSOPHY (PHiL)

## 1A THEORIES OF KNOWLEDGE AND REALITY

3 units, 3 lecture hours
PREREQUISITE: English 1A or equivalent.
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 or equivalent. 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, 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. (CAN PHIL 2) (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
PREREQUISITE: English 1A or equivalent.
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, UC)

## 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 (РНото)

## 5 INTRODUCTION TO PHOTOGRAPHY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Photography 5. Eligibility for English 125 and 126 or English as a Second Language 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 Photography 22)
ADVISORY: Applied Technology 10 or equivalent. Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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)

## 19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL 1-8 units, (Repeats $=2$ )

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 8 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 <br> 3 units, 2 lecture hours, 3 lab hours, (Repeats $=3$ ) <br> 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: Photography 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 Photography 23)
PREREQUISITE: Photography 10 or equivalent. ADVISORY: Photography 15, 12 or Applied Technology 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 Applied Technology 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 Photography 30 and 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 Photography 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 Physical Education ACT 14) PREREQUISITE: 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 Physical Education 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 Physical Education ACT 5A)
PREREQUISITE: 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 Physical Education ACT 15A)
PREREQUISITE: 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 Physical Education 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)

## 9 PHYSICAL FITNESS

1 unit, 3 lab hours, (Repeats = 3), (Formerly Physical Education ACT 17A)
PREREQUISITE: None.
Designed to test individuals, assign an exercise program and re-test to note progress. Emphasis on individual training. Use of weightlifting machines. (A, CSU, UC)

## 11 SEASONAL SPORTS

1 unit, 2 lab hours, (Repeats $=3$ in each activity), (Formerly Physical Education ACT 5)
PREREQUISITE: None.
Recreational skills of baseball, football, soccer, and softball. (A, CSU, UC)

## 12 SWIMMING

1 unit, 2 lab hours, (Repeats = 3), (Formerly Physical Education 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 Physical Education 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 Physical Education 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 Physical
Education ACT 11B)
PREREQUISITE: None.
Total body developed by exercising against weighted resistance, and doing isotonic and circuit exercises. Use of weight lifting 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 Physical Education ACT 11A)
PREREQUISITE: None.
Total body developed by exercising against weighted resistance, and doing isotonic and circuit exercises. Use of weight lifting 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 Physical Education 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 weight lifting equipment. Safety methods of lifting and the use of equipment. (A, CSU, UC)

## 17 HATHA YOGA

1 unit, 2 lab hours, (Repeats = 3), (Formerly Physical Education ACT 28)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Fundamental exercises for flexibility, strength, relaxation, and improvement of concentration drawn largely from the Hatha Yoga tradition. (A, CSU, UC)

## 50 ADAPTED FITNESS AND FLEXIBILITY

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 3)
PREREQUISITE: None.
Designed for students with disabling conditions. Development and/or maintenance of basic physical/mental skills with an introduction to basic nutrition, disability and pharmaceutical issues. Measured cardiovascular fitness, stretching, nutritional evaluation and current disability/pharmaceutical topics. (A, CSU, UC)

## 51 ADAPTED AQUATICS

1 unit, 2 lab hours, (Repeats = 3)
PREREQUISITE: None.
Designed for students with disabling conditions. Development and/or maintenance of basic physical skills, knowledge, and attitude for successful participation in aquatics. Measured skill performance and cardiovascular fitness. (A, CSU, UC)

## 52 ADAPTED RECREATIONAL SPORTS

1 unit, 2 lab hours, (Repeats = 3)
PREREQUISITE: None.
Designed for students with disabling conditions. Recreational skills of Frisbee and softball. (A, CSU, UC)

## 53 ADAPTED STRENGTH TRAINING

1 unit, 2 lab hours, (Repeats = 3)
PREREQUISITE: None.
Designed for students with disabling conditions. Development and/or maintenance of strength. Adapted fundamental/advanced strength, flexibility, and cardiovascular endurance. (A, CSU, UC)

## 54 ADAPTED WALKING AND BASIC CONDITIONING

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 3)
PREREQUISITE: None.
Designed for students with disabling conditions. Development and/or maintenance of basic physical/mental conditioning skills with and introduction to basic nutrition, disability and pharmaceutical issues. Measured cardiovascular fitness, stretching, nutritional evaluation and current disability/pharmaceutical topics. (A, CSU, UC)

## 55 ADAPTED FLEXIBILITY AND STRENGTH

1 unit, 2 lab hours, (Repeats $=3$ )
PREREQUISITE: None.
Designed for students with disabling conditions. Development and/or maintenance of flexibility, strength, and fitness using progressive resistance, stretching, and cardiovascular fitness activities. A very basic introduction to nutrition and current disability/pharmaceutical issues. (A, CSU, UC)

## PREPROFESSIONAL COURSES

## 20 ATHLETIC TRAINING

4 units, 3 lecture hours, 2 lab hours, (Formerly
Physical Education PRE 32)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 23 LIFEGUARD TRAINING

3 units, 2 lecture hours, 2 lab hours, (Formerly Physical Education PRE 31A)
PREREQUISITE: Intermediate swimming test: freestyle, elementary backstroke, breaststroke, and sidestroke. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Lifeguarding and water safety techniques. Red Cross Certification available. (CAN KINE/PE 12) (A, CSU, UC)

## 24 SPORTS OFFICIATING

2 units, 2 lecture hours, (Repeats = 3)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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
Physical Education PRE 31B)
PREREQUISITE: Intermediate swimming test: freestyle, elementary backstroke, breaststroke, and sidestroke. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Teaching methods: all levels of swimming and diving. (CAN KINE/ PE 10) (A, CSU, UC)

## 62 INTRODUCTION TO KINESIOLOGY

3 units, 3 lecture hours, (Formerly Physical Education
22 and Physical Education PRE 35)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

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)

## 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

3 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, UC)

## 29C OFF-SEASON CONDITIONING FOR BADMINTON

1 unit, 3 lab hours, (Repeats $=2$ )
Off-season conditioning activities for badminton players. (A, CSU, UC)

## 30A THEORY OF BASEBALL

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2),
(Formerly Physical Education PRE 33B)
Techniques and biomechanics of baseball. (A, CSU, UC)

## 30B COMPETITIVE BASEBALL

3 units, 10 lab hours, (Spring), (Repeats = 2),
(Formerly Physical Education 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 $=2$ )
Off-season conditioning activities for baseball players. (A, CSU, UC)

## 31A THEORY OF BASKETBALL

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 3),
(Formerly Physical Education PRE 33A)
Techniques and biomechanics of basketball. (A, CSU, UC)

## 31B COMPETITIVE BASKETBALL

3 units, 10 lab hours, (Fall and Spring), (Repeats = 3), (Formerly Physical Education 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)
Off-season conditioning activities for basketball players. (A, CSU, UC)

## 32A THEORY OF CROSS COUNTRY

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
Techniques and biomechanics of cross country. (A, CSU, UC)

## 32B COMPETITIVE CROSS COUNTRY

3 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly Physical Education 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)

## 33A THEORY OF FOOTBALL

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 3),
(Formerly Physical Education PRE 33C)
Techniques and biomechanics of football. (A, CSU, UC)

## 33B COMPETITIVE FOOTBALL

3 units, 10 lab hours, (Fall), (Repeats $=2$ ), (Formerly Physical Education 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)
Off-season conditioning activities 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

3 units, 10 lab hours, (Repeats = 2), (Formerly Physical Education 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)
Off-season conditioning activities for golfers. (A, CSU, UC)

## 35B PEP AND CHEER

2 units, 6 lab hours, (Repeats = 3), (Formerly Physical Education 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, UC)

## 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

3 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly
Physical Education 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)
Off-season conditioning activities 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

3 units, 10 lab hours, (Spring), (Repeats = 2), (Formerly Physical Education 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 $=2$ )
Off-season conditioning activities 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

3 units, 10 lab hours, (Spring), (Repeats = 2), (Formerly Physical Education 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)
Off-season conditioning activities for tennis players. (A, CSU, UC)

## 39A THEORY OF TRACK AND FIELD

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2),
(Formerly Physical Education PRE 33D)
Techniques and biomechanics of track and field. (A, CSU, UC)
39B COMPETITIVE TRACK AND FIELD
3 units, 10 lab hours, (Spring), (Repeats = 2),
(Formerly Physical Education 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)
Off-season conditioning activities 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

3 units, 10 lab hours, (Fall), (Repeats $=2$ ), (Formerly Physical Education 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<br>1 unit, 3 lab hours, $($ Repeats $=2)$<br>Off-season conditioning activities for volleyball players. (A, CSU, UC)

## 41A THEORY OF WRESTLING

1 unit, 1 lecture hour, 1 lab hour, $($ Repeats $=2)$
Techniques and biomechanics of wresting. (A, CSU, UC)

## 41B COMPETITIVE WRESTLING

3 units, 10 lab hours, (Fall), (Repeats = 2), (Formerly Physical Education 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)
Off-season conditioning activities for wrestlers. (A, CSU, UC)

## 42A THEORY OF WATER POLO

1 unit, 1 lecture hour, 1 lab hour, (Repeats = 2)
PREREQUISITE: None.
Techniques and biomechanics of water polo. (A, CSU, UC)

## 42B COMPETITIVE WATER POLO

3 units, 10 lab hours, (Repeats = 2)
PREREQUISITE: None.
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)

[^14]
## PHYSICAL SCIENCE (PHYSC)

## 7 ENVIRONMENTAL SCIENCE

3 units, 3 lecture hours, (Formerly Environmental
Studies 7)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 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, willlife, pest control, and population studies. (A, CSU)

## 11 INTRODUCTORY PHYSICAL SCIENCE

3 units, 3 lecture hours
ADVISORY: Mathematics 103 and eligibility for English 125 and 126 or English as a Second Language 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: Mathematics 4A. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 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: Mathematics 5A. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Mechanics. Designed primarily for physics, engineering, and related majors. (CAN PHYS 8) (A, CSU-GE, UC, I)

## 4B PHYSICS FOR SCIENTISTS AND ENGINEERS

4 units, 3 lecture hours, 3 lab hours
PREREQUISITE: Physics 4A.
Electricity and magnetism. Designed primarily for physics, engineering, and related majors. (CAN PHYS 12) (A, CSU-GE, UC, I)

4C 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-GE, UC, I)

## POLITICAL SCIENCE (POLSCI)

## 1 MODERN POLITICS

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 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)

## 2 H HONORS AMERICAN GOVERNMENT

ADVISORY: Meet the qualifications for consideration for acceptance into the Honors Program recommended. See Honors Program listing in the college catalog.

Analysis of political and judicial institutions and processes, political ideology, political economy, the role of the media, civil rights, California state and local government. Satisfies the U.S. Constitution requirements and the national, state and local government requirements for transfer students. In addition Honors sections investigate in detail the original design of the American political system, including the values imbued in the Constitution, the construction of the federal system, and the legal responsibilities of the major actors, and contrast those features with the current conditions in American politics. Emphasis is given to explaining the differences between the two situations, and requiring students to suggest how access to the present system can be gained and used. (TCSU POLS 110) (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 as a Second Language 67 and 68, and Mathematics 101 recommended.

Introduction to comparative governmental, political, economic and ideological arrangements in selected countries or contexts. (A, CSU-GE, UC, I)

## 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)

## 24 INTERNATIONAL RELATIONS

3 units, 3 lecture hours, (See also Political Science 174)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 25 MODEL UNITED NATIONS

3 units, 3 lecture hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Preparation for simulated United Nations conferences. Focus on international diplomacy through study of member countries and their national policies. Practice on speech, debate, negotiation, and writing techniques. Students will be expected to attend at least two Model United Nations conferences during the semester. (A, CSU)

## 110 AMERICAN INSTITUTIONS

3 units, 3 lecture hours, (Formerly Political Science
10)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## 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 GRAPHIC COMMUNICATIONS

## PSYCHOLOGY (PSY)

2 GENERAL PSYCHOLOGY
3 units, 3 lecture hours, (Formerly Psychology 7)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. (CAN PSY 2) (A, CSU-GE, UC, I)

## $2 H$ 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. (CAN PSY 2) (TCSU PSY 110) (A, CSU-GE, UC, I)

## 5 SOCIAL PSYCHOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

3 units, 3 lecture hours, (See also Child Development 12)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Issues related to abused, battered, and neglected children including issues related to child sexual molestation and pornography. Characteristics of different types of abusers, pedophiles, and adolescent molesters. Reporting laws and the legal process. Identification, prevention, and treatment of abused children and abusers. (A, CSU)

## 14 YOUTH SUICIDE

1 unit, 1 lecture hour, (See also Child Development

## 14)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 and recommended.

Sexual behaviors and values in contemporary society from a biological, psychological, social, cultural, historical and lifespan perspective. Anatomy and physiology of sex, gender development and socialization, contraception and abortion, conception and prenatal development, sexual orientation, love and communication, sexual patterns and techniques, sexual dysfunctions, sexually transmitted infections, and the causes and consequences of sexual victimization. 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 as a Second Language 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 BIOLOGICAL PSYCHOLOGY

3 units, 3 lecture hours
ADVISORY: Psychology 2, Biology 1, 3, or 5, and eligibility for English 125 and 126 or English as a Second Language 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. (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 as a Second Language 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 as a Second Language 67 and 68 recommended. Verification of freedom from tuberculosis is recommended.

Basic theories, research, concepts, and principles of physical, cognitive, and psychosocial development at each major stage of life from conception through adolescence. (CAN FCS 14) (A, CSU-GE, UC, I)

## 42 STATISTICS FOR THE BEHAVIORAL SCIENCES

4 units, 4 lecture hours, (See also Mathematics 42)
PREREQUISITE: Mathematics 103 or equivalent. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

## RADIOLOGIC TECHNOLOGY (RAd)

## 1A FUNDAMENTALS OF RADIOLOGY TECHNOLOGY

6 units, 6 lecture hours
PREREQUISITE: Admission to the Radiologic Technology Program; Applied Technology 11; Biology 24 or Biology 20 and 22. COREQUISITE: Radiologic Technology 1B and 1C. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 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 as a Second Language 67 and 68, and Mathematics 101 recommended.

Practice of the applicable rules and regulations of the clinical facility. Assist with basic radiographic procedures. (A, CSU)

## 2A RADIATION BIOLOGY

6 units, 6 lecture hours
PREREQUISITE: Radiologic Technology 1A, 1B and 1C. COREQUISITE: Radiologic Technology 2B, 2C, and 2D.

Biological effects of radiation, protection standards, personnel monitoring, and concepts of radiation units. (A, CSU)

## 2B ADVANCED RADIOGRAPHIC POSITIONING LABORATORY

1 unit, 3 lab hours
PREREQUISITE: Radiologic Technology 1A, 1B and 1C. COREQUISITE: Radiologic Technology 2A, 2C, and 2D.

Demonstration and practice in positioning of the skull, spine, bony thorax and pediatric radiography. (A, CSU)

## 2C CLINICAL OBSERVATION LABORATORY

2 units, 6 lab hours
PREREQUISITE: Radiologic Technology 1A and 1B and 1C. COREQUISITE: Radiologic Technology 2A, 2B, and 2D.

Film production proficiency, basic radiographic procedures, filing and office procedures, and patient transporting. (A, CSU)

## 2D QUALITY ASSURANCE IN RADIOLOGIC TECHNOLOGY

1 unit, 3 lab hours
PREREQUISITE: Radiologic Technology 1A and 1B and 1C. COREQUISITE: Radiologic Technology 2A, 2B, and 2C.

Evaluation of radiographic systems to assure consistency in the production of quality images. Fulfills the computer literacy graduation requirement for Radiologic Technology majors only. (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 3A.

Basic radiographic positioning and fluoroscopy. Supervised clinical experience in local hospital radiology departments. (A, CSU)

## 4A PATHOLOGY IN RADIOLOGIC TECHNOLOGY

2 units, 2 lecture hours
PREREQUISITE: Radiologic Technology 3A and 3B. COREQUISITE: Radiologic Technology 4 B .

Abnormal conditions of patients that preclude routine radiography; pathological conditions that need recognition and special treatment by radiologic technologists. (A, CSU)

## 4B ADVANCED CLINICAL RADIOLOGIC TECHNOLOGY

11 units, 33 lab hours
PREREQUISITE: Radiologic Technology 3A and 3B. COREQUISITE: Radiologic Technology 4A.

Advanced radiographic exposure and positioning; procedures in medical-surgical conditions. (A, CSU)

## 4C ADVANCED RADIOGRAPHIC POSITIONING LABORATORYCRANIUM <br> 1 unit, 3 lab hours <br> PREREQUISITE: Radiologic Technology 1B and 2B. COREQUISITE:

 Radiologic Technology 4A and 4 B .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<br>2 units, 2 lecture hours<br>PREREQUISITE: Radiologic Technology 4A and 4B. COREQUISITE: Radiologic Technology 5B.<br>Special procedures for diagnostic purposes and equipment maintenance. (A, CSU)

## 5B SPECIALIZED CLINICAL RADIOLOGIC TECHNOLOGY

11 units, 33 lab hours
PREREQUISTTE: 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)

Certain real estate courses offered by the college presently meet the course requirements imposed by the California Department of Real Estate in order to take the real estate salesperson and/or broker examination. However, these courses are not intended as licensing test preparation courses. The course requirements applicable to these examinations may be viewed at the California Department of Real Estate website www.dre.ca.gov.

## 40 REAL ESTATE PRINCIPLES

3 units, 3 lecture hours, (Formerly Real Estate 50)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. ( $\mathrm{A}, \mathrm{CSU}$ )

## 41 REAL ESTATE PRACTICE

3 units, 3 lecture hours, (Formerly Real Estate 51)
PREREQUISTTE: 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. (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. (A, CSU)

## 43 REAL ESTATE APPRAISAL I

3 units, 3 lecture hours, (Formerly Real Estate 54)
PREREQUISITE: Real Estate 40, or equivalent experience, or hold a real estate salesperson license. ADVISORY: Eligibility for Mathematics 101 recommended.

Residential and commercial property evaluation. Preparation of appraisal reports. (A, CSU)

## 44 REAL ESTATE FINANCE

3 units, 3 lecture hours, (Formerly Real Estate 54)
PREREQUISITE: Real Estate 40, or equivalent experience, or hold a real estate salesperson license. ADVISORY: Eligibility for Mathematics 101 recommended.

Money markets, interest, and lending policies for residential, multifamily, commercial, and special purpose properties. (A, CSU)

## 45 ESCROW PRINCIPLES AND PRACTICES

3 units, 3 lecture hours, (Formerly Real Estate 56)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Role and responsibility of escrow officer, including legal issues, contracts, title insurance, and forms. Institutional lenders, sales and assignments of beneficial interest, property exchange and transfers. (A, CSU)

## 46 ECONOMICS OF REAL ESTATE

3 units, 3 lecture hours, (Formerly Real Estate 56)
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. (A, CSU)

## 47 REAL ESTATE APPRRAISAL II

3 units, 3 lecture hours, (Formerly Real Estate 57)
PREREQUISITE: Real Estate 43.
Multi-family dwellings and evaluation of commercial and special-use property. Appraisal reports. (A, CSU)

## 48 REAL ESTATE INVESTMENT

3 units, 3 lecture hours, (Formerly Real Estate 58)
PREREQUISITE: Real Estate 41, or equivalent experience. ADVISORY: Eligibility for Mathematics 101 recommended.

Capital gains, depreciation, installment sales, tax deferred exchanges, sale, and lease-back; investment trusts in estate building. (A, CSU)

## 49 PROPERTY MANAGEMENT

3 units, 3 lecture hours, (Formerly Real Estate 63)
PREREQUISITE: Real Estate 40, or equivalent experience.
Methods and procedures; development of a plan; property and neighborhood analysis; tenant selection and maintenance procedures. (A, CSU)

## RECREATION (REC)

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-8 units, (Repeats $=2$ )
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 8 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 as a Second Language 67 and 68 recommended.

Educational opportunities; federal, state, and local relationships; planning programs; finance, and leadership. (CAN REC 2) (A, CSU)

## 21 RECREATION LEADERSHIP

3 units, 2 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Theoretical and philosophical basis for leadership. Social dynamics of participation in recreation activities. (CAN REC 4) (A, CSU)

## 314 Recreation

## 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

3 units, 2 lecture hours, 2 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Designed for students with disabling conditions. 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 as a Second Language 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Introduction to the basic physiologic principles for the cardiopulmonary system with emphasis on the respiratory system. (A, CSU)

19 WORK EXPERIENCE (COOPERATIVE), OCCUPATIONAL
1-8 units, 1 lecture hour, (Repeats = 2)
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 the occupational field. Learning objectives established specific to the particular occupational field. Seventy-five hours of paid employment or 60 hours of volunteer employment per unit per semester. Maximum of 8 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 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 as a Second Language 67 and 68 recommended.

Selected modalities for respiratory care with the physical, mechanical, and scientific principles associated with all attendant equipment. (A, CSU)

## 21 APPLICATIONS AND PROCEDURES IN RESPIRATORY CARE

11 units, 8 lecture hours, 8 lab hours
PREREQUISITE: Respiratory Care 20. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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

9 units, 2 lecture hours, 22 lab hours
PREREQUISITE: Respiratory Care 21. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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)

[^15]Introduction into the fully supervised clinical experience of the student respiratory care practitioner, including discerning individual patient needs, developing appropriate care plans, and applying correct procedures to patients in the intensive care setting. Selected computer clinical simulations for exit-testing are integrated with a computer-based research paper. Fulfills the computer literacy graduation requirement for Respiratory Care Practitioner majors only. (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 as a Second Language 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 (Hs)

## SOCIOLOGY (50c)

## 1A INTRODUCTION TO SOCIOLOGY

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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) (TCSU SOC 110) (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 as a Second Language 67 and 68 recommended.

Social problems in an international context, including issues of development, industrial, and post-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
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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-GE, UC, I)

## 5 SOCIOLOGY OF RAPE

3 units, 3 lecture hours, (See also Women's Studies 5)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Amicro 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 Women's Studies 7)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

A micro and marco 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 are also studied. (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 as a Second Language 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-GE, 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 as a Second Language 67 and 68 recommended.

Sociological examination of the Chicano-Latino in American society: family, religious, educational, economic, and political social institutions. Social problems, social issues, and social and cultural change. (A, CSU, UC)

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

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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. (A, CSU-GE)

## 160 BASIC SOCIOLOGY

3 units, 3 lecture hours, (Formerly Sociology 60)
PREREQUISITE: None.
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. (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

## 47 (COURSE TITLE TO BE SELECTED)

.1 to more 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 approved as variable topics; evaluation completed by individual campuses after admission.)

## 177 (COURSE TITLE TO BE SELECTED)

.1 to more 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 to more 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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 1A 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 as a Second Language 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 as a Second Language 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)

## 318 Surgical Technology

## 103 SURGICAL PROCEDURES

3 units, 9 lab hours, (Repeats = 2)
PREREQUISITE: Surgical Technology 102. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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 as a Second Language 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 as a Second Language 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)

## 15C CREATIVE WRITING: PLAYWRITING

3 units, 3 lecture hours, (Repeats = 1), (See also English 15C)
PREREQUISITE: English 1A or the equivalent.
Writing plays for critical review. (A, CSU-GE, UC)

## 24 THEATRE CRAFTS PRACTICUM

3 units, 1 lecture hour, 6 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 and Mathematics 101 recommended.

Scenic, lighting, property, and sound technical construction and installation for theatre and dance department productions. (CAN DRAM 12) (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 ESL 67 and 68, and Math 101 recommended.

Introduction to basic scene construction techniques, materials and hardware of the stage including scenic painting techniques and drafting for the theatre. (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 as a Second Language 67 and 68, and Mathematics 101 and Theatre Arts 25 recommended.

Introduction to theatrical lighting, basic electricity, theatrical sound, and stage management. (A, CSU, UC)

## 27A INTRODUCTION TO SCENIC DESIGN

3 units, 3 lecture hours, 1 lab hour
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, Mathematics 101 and Theatre Arts 25 recommended.

Designing and drafting scenery for the theatre. Ground plans, section drawings, elevations, and scenic models are emphasized. (A, CSU)

## 27B INTODUCTION TO LIGHTING DESIGN

3 units, 3 lecture hours, 1 lab hour
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, Mathematics 101 and Theatre Arts 26 recommended.

Designing and drafting lighting for the theatre. Lighting plans and sections; color theory; photo-metrics and cueing are emphasized. (A, CSU)

## 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 as a Second Language 67 and 68 and recommended.

Introduction to methods of designing and applying makeup for the stage. Classroom lecture as well as practical application of makeup materials to the body. (CAN DRAM 14) (A, CSU, UC)

## 30 THEATRE APPRECIATION

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 67 and 68 recommended.

Survey of the theatre history and dramatic literature of Western culture from Ancient Greeks through Restoration Theatre. (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 as a Second Language 67 and 68 recommended.

Survey of the theatre history and dramatic literature of Western culture from 18th century to the present. (A, CSU-GE, UC, I)

## 34 COSTUME PRACTICUM

3 units, 1 lecture hour, 6 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Supervised theatre practice for students with an emphasis in costume design/construction or costume crew responsibilities 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 as a Second Language 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 as a Second Language 67 and 68 recommended.

Techniques in costume design. Introduction to the creation of costumes for the stage by the use of visual images, drawing, and watercolor. (A, CSU, UC)

## 40 PERFORMANCE PRACTICUM

3 units, 2 lecture hours, 12 lab hours, ( 9 weeks),
(Repeats = 3)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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. Participation in a Fresno City College theatre production required. (A, CSU)

## 41 BEGINNING ACTING

3 units, 3 lecture hours, (Formerly Theatre Arts 31A)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

An introduction to the fundamentals of acting through exercises, scene performance, and play analysis. Not open to students enrolled in Theatre Arts 42. (A, CSU-GE, UC)

## 42 BEGINNING ACTING FOR THE THEATRE MAJORS

3 units, 2 lecture hours, 4 lab hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Designed for theatre arts majors stresses acting technique, character building, scene and monologue performance, and scene analysis from selected plays from Modern Realism. Not open to students currently enrolled in Theatre Arts 41. (A, CSU, UC)

## 43 INTERMEDIATE ACTING

3 units, 3 lecture hours, (Formerly Theatre Arts 31B) PREREQUISITE: Theatre Arts 41 or 42 . ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 Theatre Arts 38A and 38B and 38)
ADVISORY: Theatre Arts 43 recommended. Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Skill development for actors with intermediate acting experience. Explores elements of performance styles, scene work of classical and contemporary materials and auditioning techniques. (A, CSU-GE, UC)

## 45 KENNEDY CENTER AMERICAN COLLEGE THEATER FESTIVAL TOPICS

3 units, 2 lecture hours, 2 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Preparation of theatre students for attendance at the American College Theatre Festival. Participation in master classes and participation/attendance at adjudication events. (A, CSU)

## 46 VOICE FOR THE ACTOR

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Principles of the use of voice and speech for stage performance including Standard American Speech (IPA), diaphragmatic breath control, relaxation techniques, enunciation, articulation, projection, vocal characterization, vocal energy and expressiveness. (A, CSU)

## 348 SENIOR PLAY PRODUCTION

0 units, 1 lecture hour, 9 lab hours, (16 weeks), (Unlimited Repeats), (Formerly Theatre Arts 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 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended.

An introduction to oxyacetylene and shielded metal arc welding in the flat and horizontal positions, along with other methods of joining steel together. An emphasis on safety and developing good manipulative skill. Includes information on cutting, brazing, and an introduction to the MIG process. (A, CSU)

## 2A INTRODUCTION TO WELDING TECHNOLOGY

6 units, 4 lecture hours, 6 lab hours, (Repeats $=3$ )
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 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 MULTI-PROCESS WELDING

5 units, 3 lecture hours, 7 lab hours, $($ Repeats $=3)$
ADVISORY: Welding 2A or equivalent and eligibility for English 125 and 126 or English as a Second Language 67 and 68 , and Mathematics 101 or Applied Technology 130 recommended.

Vertical and overhead welding with the shielded metal arc process leading to the American Welding Society (AWS) Structural Welding Code 3G and 4 G Unlimited Certification Test. Advanced welding skills with gas metal $\operatorname{arc}$ (MIG) and gas tungsten arc (TIG). (A, CSU)

## 3A WELDING DESIGN AND FABRICATION

5 units, 3 lecture hours, 7 lab hours
ADVISORY: Welding 2B or equivalent, Drafting 12 , and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended.

Design and fabrication of metal projects by welding. Manufacturing processes, production techniques, and material cost estimation. (A, CSU)

## 3B ADVANCED WELDING DESIGN AND FABRICATION

5 units, 3 lecture hours, 7 lab hours, (Repeats $=3)$ PREREQUISITE: Welding 3A.
A continuation of Welding 3A 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 $2 B$ or equivalent, Drafting 12 , and eligibility for English 125 and 126 or English as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended.

An emphasis on developing certification in vertical and overhead welding positions ( 3 G and 4 G ) in structural welding with shielded metal arc welding (SMAC) flux cored arc welding (FCAV) gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW) processes leading to the American Welding Society (AWS) Structural Welding Code Certification test. (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 as a Second Language 67 and 68, and Mathematics 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
1-8 units, (Repeats = 2)
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 8 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 as a Second Language 67 and 68, and Mathematics 101 or Applied Technology 130 recommended.

Basic fundamentals of blueprint reading and welding symbol interpretation as required by the welding trade. (A, CSU)

## WOMEN'S STUDIES (wsTs)

## 5 SOCIOLOGY OF RAPE

3 units, 3 lecture hours, (See also Sociology 5)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 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 Sociology 7)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 are also studied. (A, CSU)

10 CHANGING ROLES OF WOMEN
3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

The traditional and changing roles of women in Western society, including the effects of these roles on women as individuals, in their personal relationships, and their status in society. The Contributions and contrasting perspectives of minority/ethnic women. (A, CSU-GE, UC, I)

## 24 LA CHICANA AND LATINA

3 units, 3 lecture hours, (See also Chicano-Latino
Studies 24)
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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 as a Second Language 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: Eligibility for English 125 and 126 or English as a Second Language 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, UC)

## 36 WOMEN IN LITERATURE

3 units, 3 lecture hours, (See also English 36)
PREREQUISITE: English 1A or equivalent. English 1B is not a prerequisite for this course.

Survey of literature by and about women in fiction, drama, poetry, biography, and essay. Covers multicultural and international literature from classical to contemporary periods, in addition to feminist and gender theory. (A, CSU-GE, UC, I)

## 322 Women's Studies

## 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 as a Second Language 67 and 68 recommended.

Examination of the roles and status of African-American women within the larger U.S. social structure. Diversified roles of women in Africa from antiquity through the period of slavery and colonization, including contemporary issues among African-American women and the impact African-American women have had on the U.S. and the world. (A, CSU, UC)

## 43 WOMEN'S NUTRITION

2 units, 2 lecture hours, (See also Food and Nutrition 43)

ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 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: Business Administration 10 and eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Management and entrepreneurial techniques for women seeking leadership skills, particularly for managers and those aspiring to executive levels. (A, CSU)

## 47 INTRODUCTION TO LESBIAN AND GAY STUDIES

3 units, 3 lecture hours
ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

Interdisciplinary perspective of Lesbian and Gay studies through various disciplines. Issues covered include identity development and coming out, cultural ideology, sub-cultures, activism, gay marriage, gay parenting and community. Theoretical perspectives concerning the historical development of sexual identity, the marginalization of sexual minority communities within social institutions and concomitant issues of class, race and gender in contemporary U.S. society and around the world will be explored. (A, CSU-GE, UC, I)

## WORK EXPERIENCE, GENERAL (wkEXP)

19 WORK EXPERIENCE (COOPERATIVE), GENERAL 1-3 units, (Repeats $=2$ )
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)

ZOOLOGY (SEe biology)

## COLLEGE PERSONNEL

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Speech
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Mathematics
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Chemistry
DEUG Chemistry/Geology, University Paul Sabatier, France
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Biology
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Gutierrez-Sauceda, Nancy M. (2005) Sociology
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Halls, Thom (2001)
Photography
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Automotive Technology
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Business \& Technology
A.S., Merced Junior College
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He, Jiandong (Jin) (1999)
Mathematics
B.S., Jilin University, Peoples Republic of China
M.S., California State University, Fresno

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Chemistry
B.S., Central Washington University
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Mathematics
B.S., M.S., California Polytechnic, San Luis Obispo
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Nursing
A.A., Reedley College
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Hickman, Katherine (2001)
Criminology
B.S., M.S., California State University, Fresno

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Developmental English
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B.S., M.A., Kansas State University

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Criminology
B.A., Occidental College
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Instructor/Coordinator, Cisco
Academy and Apprentice Programs
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Hodges, Cynthia (1990)
American Sign Language
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ESL
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Human Services, Sociology
B.S.W., San Jose State
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Nursing
A.N.D., St. Mary's Junior College
B.S.N., State University of New York
M.S.N., University of Texas

Holland, Nancy (2001)
Business Administration/Marketing
B.A., California State University, Fresno
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Honda, Lorence (1997)
Music
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Hood, Brett (2006)
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Hopper, Clarence (1999)
Mathematics
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Geography
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Photography
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Huneault-Schultze, Sylvie (2001) ESL
A.A., Cape Cod Community College
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Hunter, Timothy D. (2004)
Applied Technology
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Mathematics
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Political Science
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Political Science
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Adaptive Physical Education
B.S., University of Santa Clara
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Accounting
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Kirby, James (2008)
Human Services
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Kizziar, Robert (1999)
Art, Ceramics
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Koshear, Jeannine (2005) Geography
B.A., University of California, Santa Cruz
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Mathematics
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Psychology
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English
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Medical Assisting Surgical Technology
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Electrical Systems Technology A.A.S., Ferris State College, Michigan B.S., California State University, Fresno

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Anthropology/Archaeology
B.A., California State University, Long Beach
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Accounting
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B.S., M.S., California State University, Fresno

Mohle, Dennis I. (2004)
Computer Information Technology Air Force Academy
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Maintenance Mechanic (CTC)
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Child Development
B.A., M.A., Stanford University

Moses, John (1999)
English
A.B., Albright College
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American Indian Studies/Sociology
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Business \& Technology
A.A., Reedley College
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Nitzsche, Eric J. (1996)
Construction
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Oaks, Scott (2007)
Radiologic Technology
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B.S., California State University, Fresno
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Child Development
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Ockey, Debbie (1995)
Linguistics/ESL
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Physics, Engineering
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Olowude, Brian (2005)
Psychological Services Center
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Sacramento
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Olson, Rodney G. (2002)
Biology
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Olson, Kenneth E. (1990)
Electronic Technology,
Automated Technologies
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Mathematics, Developmental Math
B.A., California State University, Fresno
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Computer Information Technology
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Dental Hygiene
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B.A., Fresno Pacific University
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Biology
B.S., Oregon State University
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Parks, John L. (1996)
Air Conditioning
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Patton, Michelle (2008)
English
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Spanish
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Graphic Communications
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Geology
B.S., M.S., California State University, Fresno

Porteous, Scott (2001)
Biology
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Counselor
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Music
B.A., California State University, Fresno M.M., Eastman School of Music

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B.A., Southern Connecticut State University M.L.S., Western Michigan University

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B.A., Western Washington University
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Speech
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Hills
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## Mathematics

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Electrical Systems Technology
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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

Rosendale, Stephen (2008)
Automotive Technology
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Rutishauser, Brian (1999)
History
B.A., University of Dayton
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English
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Santos, Richard (1994)
Linguistics/ESL
B.A., M.A., California State University, Fresno

Sause, James (2000)
Computer Information Technology
B.S., California State University, Fresno
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Scheid, Anne F. (1991)
Art
B.A., Edgecliff College
M.F.A., University of Cincinnati

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Physical Education
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Business Administration/Business
Law
A.A., Fresno City College
B.A., Fresno Pacific University
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Business Administration/Marketing
B.S., California State University, Fresno
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Physical Education
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Business \& Technology
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Radiologic Technology
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M.O.B., California School of Professional Psychology
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English
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Siroky, Allen (1999)
History
B.A., Rocky Mountain College
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Psychology
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Cruz
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Computer Information Technology
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Physical Education
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African-American Studies
B.F.A., Art Institute and University of Chicago
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Art History
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Electrical Systems Technology
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Art, Printmaking
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Philosophy
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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

Ybarra, Kerry (2007)
Philosophy/Humanities
B.A., California State University, Fresno
M.A., California State University, 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

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
Arredondo, Alfred V.
1975-2008
Counselor
Arroyo, Robert F.
1969-1999
Associate Dean of Students,
Director, EOP\&S
Asbury, Betty J.
1961-1978
History
Atkinson, Dennis. C.
1990-2008
Automotive Technology
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
Beck, Allen
1974-2008
Anthropology
Bell, Calvin
1968-1984
Counselor
Bell, Edward 1979-1986 Auto Mechanics
Bengel, Earl 1968-1997 Engineering

Bill, Gerald M.
1970-2008
Sociology
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
Brooks, Walter 1970-2008
Counselor
Brown, Martin D. 1974-1990
Associate Dean of Instruction, Health Arts and Sciences
Brown, Richard S. 1964-1986 Geology
Brunetti, Pat A.
1982-2004
Nurse
Bruns, Paul M. 1958-1990
Chemistry
Byrd, Ronald F.
1968-2001
Librarian
Carlisle, Elizabeth 2005-2007
Speech
Castine, John 1955-1984 English

Chow, Richard 1968-1991 Reprographics, Industrial Education
Christian, Peter C. 1958-1981 English
Cleland, Richard L. 1959-1996 College Business Manager

Cleveland, Sandra
1976-2007
Nursing
Colby, Camilla
1969-2007
Spanish
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
Deeter, Gary, 1981-2008
Music
DeKoning, Richard M.
1958-1982
Drafting, Mathematics,
Architecture, Industrial Education
DePry, Ronald N.
1970-1993
Biology
Dickie, David R.
1965-1996
Drafting, Industrial Education
Discont, Conrad M.
1963-1994
English, Humanities, Speech
Dose, Kenneth D.
1971-1999
Physical Education
Dotts, John
1981-1996
Industrial Education, Construction, Mathematics
Dougherty, Sara 1955-1981
Physical Education
Doyland, Russell A.
1961-1983
Accounting

Draper, C. Dean 1960-1987
Art
Drummond, Harold G. 1970-1984
Accounting
Dzerigian, Steven V. 1987-2008
Photography
Eckenrod, Gervase A.
1955-1984
Associate Dean of Instruction,
Business Division
Eckenrod, Sherian H.
1979-2003
Associate Dean of Instruction, Business Division
Edman, Leland M.
1975-1991
Administration of Justice
Eischen, Clifford
1964-1998
Business Administration, Management
Elgorriaga, Carmen
1970-1994
English, Spanish
Elliott, Jacqueline 1995-2006
Art
Ellish, Arthur D.
1973-1999
Dean of Instruction
Engel, Kathleen
1980-2008
Nursing
Estrada, Gonzolo
1965-1984
English
Estrada, Joan E.
1964-1989
Accounting
Farrington, Gerald
1970-2003
History, Political Science
Ferguson, Phillip
1972-1982
Mathematics
Fischer, Laurene J.
1965-1995
Business Administration,
Computer Information Technology

Franz, James J.
2000-2008
Economics
Fries, Bobby
1965-1991
Health Education, Track
Gaither, Loren F.
1964-1996
Mathematics
Gaona, Venancio Garcia 1969-1999
Spanish
Gartman, Grace
1989-2005
Tutorial Resources
Gaudin, Roderick F.
1966-2005
Sociology
Gibbs, Richard R. 1966-1994 Economics, Psychology
Gonzales, Paul 1989-2007
Radiologic Technology
Graham, Ronald J.
1987-2005
Criminology
Green, M. Fred 1962-1984 Engineering
Grover, Stanford C.
1966-1977
Counselor
Gunn, Donald L. 1971-1992
Theatre Arts, Speech
Hald, Kenneth
1949-1972
Biological Sciences
Hallstone, Kenneth
1968-2002
Psychology
Handley, Richard 1955-1980 Associate Dean of Instruction, Occupational Education

Hanson, Richard A. 1965-2003
Psychology
Hanson, William F.
1946-1978
Director, Vocational Training Center

Haroutunian, Vahack 1971-1996
Mathematics
Hayden, Layne E. 1999-2007
Automotive Collision Repair
Hendrickson, David H. 1958-1984
Geography, History
Hendry, Harold T. 1966-1984
Business Administration
Hibler, Edward B. 1961-1978
Psychology
Hill, Jack
1956-1980
Marketing, Advertising
Hiroyasu, Shaw
1975-1996
Automotive Mechanics, Industrial Education
Hoff, Nancy
1981-2007
Nursing
Holstein, George C. 1955-1966
Dean of Admissions \& Records
Jansen, Janice R.
1975-2004
Physical Education, Dance
Jeanis, Dorothy I. 1969-1995
Business Administration,
Management
Jimenez, Joaquin 1988-2004
District Associate Dean of Financial Aid
Johnston, H. Bruce
1966-1996
Biology
Keen, Derl W. 1975-2001
Child Development
Kennedy, Harry L. 1984-2005
Journalism, English
Kimura, Robert H. 1963-1984
Chemistry

King, Charles G.
1958-1990
Electronic Technology,
Industrial Education
Khoury, Alexis
1990-2008
English
Kirkhart, Jerry L.
1989-2005
Biology
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
Lane, W. Keith 1968-2005 Business Administration/Marketing
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

Liddle, Lee D.
1989-2007
Business \& Technology
Liscano, Tanya
1974-2001
Librarian
Locker, Theodore A. 1965-1990
English
Lopez, Matthew
1971-1991
Welding
Luck, Emory F.
1984-2004
Physical Education
Lund, Edward L.
1988-2008
Counselor, Disabled Students Programs \& Services
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
Mascarenas, Timothy E. 1971-2004 Automotive Technology
Mateo-Laeno, Mary Ann 1990-2007 Child Development
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
McHenry, James A. 1965-2001
Biology
Merlier, Christiane M.
1984-2008
ESL, French
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
Morgan, Carl H. 1955-1973
Physics, Mathematics
Muldoon, Marcia
1995-2006
English
Munshower, Donald
1984-2003
Counselor
Murphy, Connie J. 1984-2007
Business \& Technology
Musick, William D.
1965-1999
Physical Education

| Neal, Stanley B. 1990-2005 Welding, Metal Fabrication | Piper, James K. 1965-1999 English, Film |
| :---: | :---: |
| Neal, William A. 1961-1990 Mathematics | $\begin{aligned} & \text { Pool, June E.V. } \\ & \text { 1956-1984 } \\ & \text { Vocational Nursing } \end{aligned}$ |
| Nelson, Carl C. 1966-1994 Biology | Porter, Ralph W. 1971-2003 Biology |
| Neuman, Darlene H. 1962-2000 <br> Business \& Technology | Putnam, Marlene S. 1984-2001 <br> Business \& Technology |
| Newcomb, Joan T. 1971-2001 Sociology, Child Development | Quinn, Charles T. 1970-2003 <br> Theatre Arts, Speech |
| Nielsen, Robert <br> 1961-2001 <br> Music <br> Nishimoto, Henry 1980-2007 | Quintana, Frank M. 1970-2006 <br> Associate Dean of Instruction, Fine, Performing, and Communication Arts Division |
| $\begin{aligned} & \text { Ogden, Gordon L. } \\ & \text { 1975-1994 } \end{aligned}$ | 1971-2000 <br> Director, Arts, Honors \& Student Success |
| Director, Health Sciences Okkerse, Victor J. 1959-1984 | Ramay, Morris W. <br> 1972-2000 <br> Respiratory Care |
| Secretarial Science | Rash, Lucille |
| 0sborne, Leon 1959-1995 | 1970-2003 <br> Business \& Technology |
| Art Owens, Kenneth B. 1963-1999 | Rawate, Prabhu 1990-2005 Chemistry |
| Art <br> Pauls, Albert N. 1963-1990 | Reid, Birt <br> 1973-2007 <br> Counselor |
| Secretarial Science Paulson, Richard S. 1955-1984 | Reynolds, Jr., William A. 1957-1978 <br> French |
| Speech Paz, Isias E. 1971-1996 | Richardson, Robert L. 1968-2005 Counselor |
| Spanish, German Peart, Gilbert M. 1958-1977 | Riddlesprigger, William 1976-2006 English |
| Marketing <br> Perkins, Alvan E. 1964-1990 | Ritter, James J. <br> 1984-2002 <br> Maintenance Mechanic (CTC) |
| Counselor <br> Peterson, John R. 1965-1999 | $\begin{aligned} & \text { Rios, Cruz F. } \\ & \text { 1976-1986 } \\ & \text { Automotive Mechanics } \end{aligned}$ |
| Engineering, Physics | Rohrer, Martha J. <br> 1976-1981 <br> Home Economics |

Rose, Bronwen Wendy 1984-2003
Native American Studies
Ross, James Edward 1971-2002
Mathematics
Rowe, Andrew F.
1962-1990
Mathematics
Ruston, James R.
1967-1995
English, Speech
Ryska, John W. 1965-1982
Counselor
Sabbatini, LeRoy A. 1976-1999 Automotive Collision Repair
Sadler, Harold D. 1974-1993 Business Administration
Saddler, James 1990-2008 English
Safer, Joseph 1963-1985 Data Processing
Sakata, Kenneth 1981-2003 Cabinetmaking Technology
Sall, Gerald
1977-2007
CTC Counselor
Salrin, Ralph E.
1961-1986
Accounting
Sandau, Richard R. 1959-1983 English
Sausen, Barbara 1981-2008 Mathematics

Scambray, Terry A. 1967-2001
English
Schuller, Michael 1990-2007 Psychology
Scott, Rueben A. 1971-2005 English, Philosophy

Scott, William F.
1967-1984
Geography
Seaberg, William
1980-1998
Associate Dean of Instruction, Learning Resources

Shepard, James H.
1987-2005
Art
Shine, G. Dennis Jr.
1968-1993
Economics,
Business Administration
Shirley, W. Delton
1968-2001
Biology
Slaughter, Clare L.
1955-1984
Physical Education
Smith, Bernice V.
1972-1978
Librarian
Smith, Dorothy E. 1965-1978
Nursing
Smith, Shannon 1958-1980 Flight Science, Industrial Education
Sorensen, Royal
1976-1978
Microbiology
Sosa, Luis R. 1977-1993
Sociology, Human Services
Spencer, Lowell 1948-1978
Music
Spolsdoff, John 2000-2008
Director, Student Success \& Honors
Stanley, Vance
1972-1999
Physical Education
Stark, Charles M. 1966-1990 Physical Education

Statham, Yolanda A.
1964-1984
English
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
Valencia, Richard
1976-2007
Sociology
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
Watson, Donald G. 1968-2005
Counselor
Wayte, William R. 1968-1999
Physical Education
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
Woodman, Joseph B.
1948-1976
Auto Mechanics
Woodruff, Jr., Elbert N.
1971-1984
English
Woods, MaryAnn
1989-1999
Medical Assisting,
Health Information Technology
Wortham, Kenneth
1990-2005
Biology
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

## Emeritus Classified Professionals

Archuleta, Irene
1990-2004
Administrative Aide
Barber, Joan
1974-2007
Office Assistant III
Belk, James
1982-2004
Library/Learning Resources Assistant III
Bischel, Steve
1973-2007
Custodian
Bogdanoff, Gerald
1980-2004
Electronics/Microcomputer Technician
Christiansen, Argilia
1977-2003
Textbook Purchasing Clerk
Flores, Delfina
1977-2007
Student Services Specialist
Gillespie, James
1973-2005
Instructional Technician, Biology
Hagler, Linda
1992-2008
School Relations Specialist
Harris, Elizabeth
1980-2005
Administrative Assistant

Jimenez, Jess
1997-2004
Athletic Equipment Manager
Kelley, LaVonne
1974-2005
Office Assistant III
Komaki, Hiro
1975-2005
Graphic Artist
Kroeker, Jay
1970-2004
Audio Visual Maintenance Specialist
Larsen, Dale
2002-2007
Financial Aid Assistant
Linn, Carolyn
1991-2004
Administrative Aide
Livengood, Robert
1982-2005
Instructional Technician-Auto
McSwain-Tennent, Holly 1997-2005
Administrative Aide
Mena, Salvador
1973-2007
Educational Advisor
Miller, Donna
1985-2003
Business Facilities Assistant
Miller, Toni 0.
1973-2004
Educational Advisor

Moorer, Lewis
1983-2008
Lead Custodian

## Pelham-Wiley, Emma

1987-2003
Nursing Skills Resource Assistant
Pisching, George
1990-2008
Graphic Artist
Rackin, Marilyn
1975-2007
Secretary to the President
Slevkoff, Hazel
1970-2006
Curriculum Assistant
Sullivan, Francis
1975-2003
Theatre Manager
Tortensen, Jeffrey
1992-2007
Department Secretary
Vennard, Michael
1992-2005
Instructional Technical-Reprographics
Willingham, Tandy
1982-2004
Library/Learning Resources Assistant III
Willis, Carole
1999-2004
Office Assistant I

## In Memoriam

Mary L. Arechiga English<br>Doug Carl<br>Lead Custodian<br>Teresa Dahill<br>Office Assistant III

Evelyln Fiorani
Duplications Supervisor
Dean H. Larsen
Welding, Industrial Education
Carol Kelly
Bookstore Sales Clerk II

Theodore N. Moranda
History
A. William Rumley History

Alfred Scampini
Maintenance Worker

## Mary H. McFarland

English

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## Student Notes

## Student Notes


[^0]:    * Fees are subject to change without notice.

[^1]:    * Fees are subject to change without notice.

[^2]:    * In all cases, unit load refers to units carried at Fresno City College.

[^3]:    ++ Pending State Chancellor's Office Approval.

[^4]:    ++ Pending State Chancellor's Office Approval.

[^5]:    ++ Pending State Chancellor's Office Approval.

[^6]:    ++ Pending State Chancellor's Office Approval.

[^7]:    * This course may be offered once a year. Check with division office (BE-110).

[^8]:    ++ Pending State Chancellor's Office Approval.

[^9]:    ++ Pending State Chancellor's Office Approval.

[^10]:    List of Courses: 18 units selected from the lists below*
    ASSOCIATE IN ARTS DEGREE
    Philosophy (any three):
    Units
    PHIL 1A Theories of Knowledge and Reality or
    PHIL 1AH Honors Theories of Knowledge and Reality............ 3
    PHIL 1B Social and Political Philosophy............................ 3
    PHIL 1C Ethics ................................................................ 3
    PHIL 1D World Religions.................................................. 3
    PHIL 4 Critical Reasoning........................................... 3
    PHIL 5 Philosophy of Religion................................... 3
    PHIL 6 Introduction to Logic........................................ 3
    Humanities (any three):
    $\begin{array}{lr}\text { HUMAN } 7 & \text { Introduction to British Culture or } \\ \text { HUMAN 7H } & \text { Honors Introduction to British Culture ............. } 3\end{array}$
    $\begin{array}{cc}\text { HUMAN 10 } & \text { Classical Humanities or } \\ \text { HUMAN 10H } & \text { Honors Classical Humanities ........................... } 3\end{array}$
    $\begin{array}{rr}\text { HUMAN } 11 & \text { Modern Humanities or } \\ \text { HUMAN 11H } & \text { Honors Modern Humanities............................. } 3\end{array}$
    ENGL 12 The Bible as Literature....................................... 3
    ENGL 42 Classic Myths..................................................... 3
    ENGL 44A World Literature to the Renaissance or
    ENGL 44B World Literature since the Renaissance............. 3
    *Note: An Associate in Arts Degree in Liberal Arts with an emphasis in Philosophy/ Humanities will be awarded to students who successfully complete a total of 60 units, which include the Associate Degree requirements and a minimum of 18 unites of major course work listed above. Students seeking an associate degree may apply for an evaluation after they have completed 30-40 units and are within one year of graduation.

[^11]:    ++ Pending State Chancellor's Office Approval.

[^12]:    ++ Pending State Chancellor's Office Approval.

[^13]:    ++ Pending State Chancellor's Office Approval.

[^14]:    42C OFF-SEASON CONDITIONING FOR WATER POLO
    1 unit, 3 lab hours, (Repeats =2)
    PREREQUISITE: None.
    Off-season conditioning activities for water polo players. (A, CSU, UC)

[^15]:    23 CLINICAL APPLICATIONS IN RESPIRATORY CARE II
    9 units, 2 lecture hours, 22 lab hours
    PREREQUISITE: Respiratory Care 22. COREQUISITE: Respiratory Care 25. ADVISORY: Eligibility for English 125 and 126 or English as a Second Language 67 and 68 recommended.

