6201 Winnetka Avenue Woodland Hills, CA 91371

For faster service find the proper office listed alphabetically below. For offices not listed call campus operator at (818) 347-0551. Also visit our website at http://www.piercecollege.edu. All numbers listed below are (818) area code.
ADMINISTRATIVE AND CAMPUS SERVICES
Academic Affairs .719-6444 Honors. ..... 719-6485
Admissions .719-6404 Housing ..... 719-6453
Articulation ..... $.710-2516$
Information Desk ..... 710-3390
Assessment Center/Matriculation ..... 719-6499
Interpreter Services for Deaf ..... 719-6430
Associated Students Organization ..... 719-6411
International Students. ..... 719-6417
Athletic Director ..... 719-6421
Job Placement ..... 719-6453
Bookstore Information. .347-0313 Learning Center ..... 719-6414
Business Office $.719-6432$ Library ..... 719-6409
Campus Club ..... 719-6419
Lost \& Found ..... $.719-6450$
Career \& Transfer Center ..... $.710-4126$
Matriculation ..... 719-6499
Child Development Center
19-64
edia Center ..... 719-6424
Community Services .719-6425 P.A.C.E. ..... 719-6485
Compliance Office ..... $.710-2508$
Personnel ..... 719-6407
Cooperative Work Experience Education ..... $.710-4291$
Plant Facilities ..... 719-6441
Counseling ..... 719-6440
Police, College ..... 719-6450
Disabled Student Services $.719-6430$ President, College ..... 719-6408
Encore/Oasis Older Adult Program ..... 710-2561
Purchasing ..... $.710-2858$
EOPS/CARE .719-6422 Receiving ..... 719-6445
Financial Aid .719-6428 Records. ..... 719-6404
Foster and Kinship Care Education .710-2937 Roundup, The ..... 719-6483
Foundation for Pierce College .703-0826 Service Learning. ..... $.710-2588$
GAIN/CalWORKs ..... 719-6400
Special Services ..... 719-6430
Graduation ..... 710-4164
Student Activities ..... 719-6419
Health Center $.710-4270$ Student Employment ..... $.719-6453$
Help Center. $.710-4175$ Student Services ..... 719-6418
High School Outreach $.710-3379$ Transfer Center ..... $.710-4125$
Veterans Services ..... $.710-2954$
INSTRUCTIONAL PROGRAMS AND DEPARTMENTS(See page 51 - Department \& Program Organization)

# LOS ANGELES <br> plerce college 

One Of Nine Los Angeles Community Colleges


Los Angeles Pierce College
6201 Winnetka Avenue
Woodland Hills, California 91371
(818) 347-0551

Pierce College Website: www.piercecollege.edu

Pierce College is a tax-supported educational institution which offers post-high school opportunities for men and women and is administered by the Los Angeles Community College District.

## Accreditation

Los Angeles Pierce College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, (10 Commercial Boulevard, Suite 204, Novato, CA 94949 (405) 506-0234), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education.

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## Accuracy Statement

The Los Angeles Community College District and Los Angeles Pierce College have made every effort to make this catalog accurate and may, without notice, change general information, courses, or programs offered. The reasons for change may include student enrollment, level of funding, or other issues decided by the district or college. The district and college also reserve the right to add to, change, or cancel any rules, regulations, policies and procedures as provided by law.

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## A Message From The President

TThis year kicks off the Diamond Anniversary for Pierce College. In 2007, Pierce College begins its 60th year of service to the San Fernando Valley. Hundreds of thousands of students have studied on the campus since its simple beginnings when 100 students, all agriculture majors, began learning at the first college in the Valley in 1947.

As the college has matured, we have continued to gain insight from the past, and perspective for the future. Most importantly, Pierce is in the midst of a Renaissance. Over the next several years, our faculty and staff will grow and continue to carry on the tradition of student-centered learning that has given Pierce its outstanding academic reputation. In addition, nearly every building on campus will be renovated, and new buildings will be constructed with funds from the voter approved Propositions A/AA. Clearly, our "diamond decade" will be a time for college accomplishment and student achievement.

As we grow and change, Pierce remains committed to student access and success. We welcome all students to join us in a positive and supportive learning environment that values diversity, and helps students to reach their educational and career goals.

So while we reflect on our glorious past, all of us at Pierce are excited about where we are today, and look forward to tomorrow. Thank you for choosing Pierce College. We are thrilled to share this experience with you.

## Robert Garber <br> President

## Nondiscrimination Policy

All Programs and activities of the Los Angeles Community College District shall be operated in a manner which is free of discrimination on the basis of race, color, national origin, ancestry, religion, creed, sex, pregnancy, marital status, medical condition (cancer related), sexual orientation, age, disability, or veterans status (Reference: Board Rule 1202).

## Americans with Disabilities Act (ADA)

Pierce College is committed to providing reasonable accommodations to students, faculty and staff with disabilities in compliance with the American with Disabilities Act of 1990 (ADA) and corresponding state law. Under the ADA, anyone who has a physical or mental impairment substantially limiting one or more major life activities, has a record of such impairment, or is regarded as having such impairment, is considered a person with a disability. In accordance with the provisions of the ADA and Section 504 of the Rehabilitation Act of 1973, disabilities may include, but are not necessarily limited to, visual impairments, mobility and orthopedic impairments, hearing impairments,
chronic medical conditions, learning disabilities, and psychological disorders. In terms of employment, the law defines a "qualified individual with a disability" as a person who can perform the essential functions of the job with or without reasonable accommodation. Reasonable accommodation is determined on an individual basis depending on an employee's job duties, functional limitations and whether the proposed accommodation will result in undue hardship to the college.

The Office of College Compliance has been designated to coordinate the College's compliance with the ADA and with Section 504 of the Rehabilitation Act of 1973. The office handles inquiries about compliance and investigates complaints relating to accommodations and services requests. Additional information may be obtained by contacting the College Compliance Officer at (818) 710-2508 and www.compliance@piercecollege.edu or visiting the OCC website at www.piercecollege.edu/offices/compliance.

Equal Opportunity Policy Compliance Procedure
In order to insure Equal Opportunity Policy Compliance at Los Angeles Pierce College, please
direct inquiries to the College Compliance Officer Sylvia Silva at (818) 710-2508. In addition, inquiries may be directed to Gene Little, LACCD Director of Diversity Programs, at (213) 891-2315.

## Regla de No Discriminación

Todos los programas y actividades del Los Angeles Community College District se implementan de manera que sea libre de discriminación a base de raza, color, nacionalidad, antepasados, religión, credo, sexo, embarazo, estado civil, condición médica, (relación al cancer), orientación sexual, edad, incapacidad o si sea o no sea veterano (Referencia: Regla 1202 de la Junta).

## Política de Acuerdo con los Procedimientos de Igualdad de Oportunidades

Para poder asegurar igualdad de oportunidades en Los Angeles Pierce College, por favor dirija sus preguntas a Sylvia Silva, teléfono (818) 710-2508. Además, puede también dirigir sus preguntas a Gene Little en la oficina del distrito, teléfono (213) 891-2315.

# General Information 

## College Information

## History of the College

Los Angeles Pierce College has been a landmark in the West San Fernando Valley for over 50 years. In December 1943, 392 acres of land set in rolling hills was purchased to establish the Clarence W. Pierce School of Agriculture, named after the Los Angeles City Board of Education member instrumental in forming the new college over the objections of many who thought the West Valley too rural to support a learning institution.

The first classes at Pierce, which were designed to provide technical and practical agricultural training, began in the fall of 1947 under bare light bulbs in makeshift classrooms created from Quonset huts salvaged from World War II. The College's first students, 212 male World War II veterans ( 77 full-time and 135 part-time), enrolled in 46 courses and weathered the sun, the winds, power failures, floods, and mud. The College colors, selected by the students of Pierce College in 1947, are scarlet and white.

Community pressures and demands soon caused the College to broaden its educational scope and also to admit women in February 1951. In the summer of 1956, by official action of the Board of Education, the College name was changed to Los Angeles Pierce College. Under this new name, the College continues as one of nine colleges in the Los Angeles Community College District.

Today the College serves a highly literate population, preparing students to take their place or to retrain in industries at the forefront of technological advances. While the College remains unique in the greater Los Angeles area because of its farm and its instructional program in agriculture, natural resources management, animal health technology, and related fields, it may be best characterized by its broad range of instructional programs. Students may choose to pursue a program in liberal arts and sciences and then transfer to a four-year college or university, or they may select from a variety of occupational fields including computer technology, journalism, nursing, office administration, and welding.

Complementing the instructional programs are community services workshops for adults and children on topics of popular interest.

## College Campus

Pierce College is located on 427 acres in the western San Fernando Valley. Large sections of tillable and range land have been preserved as an enclave within a suburban environment.

Besides classrooms and laboratories, the College maintains many special facilities to supplement its educational and extracurricular programs. Athletic facilities include a stadium, baseball field, soccer field, tennis courts, swimming pool, and an equestrian arena. The College is also proud of its library, Learning Center, writing and math labs, Career Center, Campus Center, cafeteria, College Services Building, and Performing Arts Building. Most college facilities are accessible to students with physical handicaps.

## Regular Program

For the academic year 2007-2008 the fall semester will run from September 4 to December 20, 2007. The spring semester will follow from February 4 to June 2, 2008.

The regular program consists of two semesters, 16 weeks in length. Classes are scheduled from 7 a.m. to 10 p.m. There are a limited number of Saturday and Sunday offerings. All college classes are open to regularly enrolled students.

Courses are designed to meet community needs for specialized vocational and general education courses, as well as courses which transfer to four-year colleges and universities. These classes are taught by college faculty and experienced instructors from all the instructional disciplines.

## Summer Session and Winter Intersession

Summer Sessions and a Winter Intersession may be offered subject to approval by the Board of Trustees.

## Library

The college library has a collection of more than 100,000 books and subscribes to approximately 200 magazines, journals, and newspapers.

The library web page, located at www.piercecollege.edu/students/ library, provides a link to the online book catalog as well as to online full-text journals, newspapers, informational databases, indexes, and thousands of eBooks.

Enrolled Pierce students are able to borrow library materials by presenting their current Pierce student I.D. card. Library policies and regulations are posted in the library and on the web page.

The library is centrally located on the main campus mall. Facilities include study carrels, group study rooms, computers, microfilm machines, and copiers.

Professional librarians are always available to teach search strategies to students and help them with their research needs. Students should consider the library their first and best source of information resources.

## Accrediting Agencies

Los Angeles Pierce College and its various academic programs are accredited by the following agencies.

- Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges 10 Commercial Boulevard, Suite 204, Novato, CA 94949 (415) 506-0234
- American Veterinary Medical Association 1931 North Meacham Road, Suite 100, Schaumburg, IL 60173 (847) 925-8070 www.avma.org
- Bureau of Automotive Repair (BAR) 10240 Systems Parkway, Sacramento, CA 95827 (916) 255-4200, (818) 596-4400
- California Board of Registered Nursing (BRN) 400 R Street, Suite 4030, Sacramento, CA 95814 (916) 322-3350 www.rn.ca.gov
- California Association of Alcohol and Drug Educators (CAADE) P.O. Box 7152 Oxnard, CA 93031-7152 (805) 485-5247 www.caade.org drmarks@adelphia.net
- National Institute of Metalworking Skills

3251 Old Lee Highway, Suite 205
Fairfax, VA 22030
(703) 352-4971 www.nims-skills.org

- National Automotive Technician Educational Foundation (NATEF) and National Institute for Automotive Service Excellence (NIASE) 13505 Dulles Technology Dr., Ste 2, Herndon, VA 20171-3421
- National League for Nursing Accrediting Commission, Inc. 61 Broadway - 33rd Floor, New York, NY 10006 (800) 669-1656 www.nlnac.org
- Western State Conference of the Commission on Athletics 2017 "O" Street, Sacramento, CA 95814


## Mission

Pierce College is a learning institution that offers excellent opportunities for student access and success in a diverse college community. The college dedicates all of its resources to ensure that students achieve their educational, career, and personal goals. Our comprehensive curriculum and support services enable students to earn associate degrees and certificates, prepare for transfer, gain career and technical education proficiency, develop basic skills, and prepare for lifelong learning. We also serve our community through economic and workforce development.
Pierce College values:

- Student success and engagement
- An environment conducive to learning
- Access and opportunity
- Service to our communities
- Commitment to excellence
- Enrichment through diversity
- Freedom to think, dialogue, and collaborate


## Educational Philosophy

Los Angeles Pierce College affirms the principle that individuals should have opportunities to develop to their full potential. Therefore, we recognize our responsibility:

- to provide educational opportunity to all persons in the community regardless of race, color, national origin, ancestry, religion, creed, sex, pregnancy, marital status, sexual orientation, age, handicap or veterans status,
- to provide rigorous, high quality educational experiences so that students can truly benefit from and use their education,
- to provide effective counseling and other support services that contribute to instructional effectiveness and student success,
- to provide multicultural, international, and intercultural collegiate experiences that foster individual and group understanding,
- to effectively manage educational and financial resources,
- to distribute and decentralize decision making to its most effective level, and
- to provide an attractive, safe, comfortable, and clean campus.


## Limited English Proficiency

Occupational education classes are open to all students. Although the lack of proficiency in English is no barrier to enrollment in occupational education courses, it is suggested that students deficient in English utilize the services of the College that are provided for persons who are limited in English proficiency.

## Functions of the Community Colleges

To accomplish the educational philosophy and mission of the Los Angeles Community Colleges, Los Angeles Pierce College offers the following types of educational programs.

TRANSFER. A college transfer program which enables the student who completes two years of study to continue into upper division work at accredited four-year colleges and universities through careful and continuous articulation with accredited collegiate institutions and high schools.

OCCUPATIONAL. An occupational education program planned to offer the student basic business, technical, and professional curricula to develop skills which can lead to employment, job advancement, certification, or an associate degree.
GENERAL EDUCATION. A program of general education comprised of associate degree programs and other planned experiences which develop knowledge, skills, and attitudes necessary for the student to be effective as a person, a member of society, a worker, and a citizen, thereby enhancing the quality of life for the individual and for the society at large.

TRANSITIONAL EDUCATION. A program of remedial and basic skills education for students needing preparation for community college level courses and programs; and English as a Second Language instruction for immigrants, foreign students and other students with limited English proficiency.
COUNSELING AND GUIDANCE. A counseling and guidance program incorporating academic, career, and personal counseling and assistance in matters of admissions, financial aid, job placement and student activities; to assist the student in the establishment of educational goals and in the selection and pursuit of a life work compatible with his or her interests, aptitudes, and abilities.

CONTINUING EDUCATION. A program of continuing education comprised of graded and ungraded classes to provide opportunities for personal and occupational competence that supplement formal full-time college attendance.

COMMUNITY SERVICES. A program of community services offered to meet the needs of the community for vocational and recreational courses, community and cultural events, and civic functions, completely financed by fees charged those in attendance.

JOINT PROGRAMS. Joint programs with business, industry, labor, education, government and other institutions which are of mutual benefit to sponsoring institutions, enhance the educational opportunities of program participants, and advance the mission and functions of the College.

## Strategic Goals and Strategies

Pierce's mission statement identifies us as a learning institution committed to serving students and the community. In order to achieve our mission, eight broad goals for institutional development have been developed to guide the college's planning and decision making processes. These goals and their objectives for implementation are intended to be the basis for action plans and funding and other resource requests necessary for implementation and improvement.
Goal 1: Pierce College will offer excellent, responsive instructional programs to facilitate and improve student learning.
Goal 2: Pierce College will increase opportunities for student access, readiness, retention, and success.
Goal 3: Pierce College will enhance the learning environment to be culturally and pedagogically diverse.

Goal 4: Pierce College will expand the effective use of technology in all areas of the college.

Goal 5: Pierce College will enhance its relationships with the community at large.
Goal 6: Pierce College will establish and maintain fiscal stability.
Goal 7: Pierce College will implement a campus facilities master plan that fully integrates programs, services and budget in support of student learning.
Goal 8: Pierce College will continually refine both its governance and decision processes and its interaction with the district to increase effectiveness and inclusion.

* Complete copies of the Strategic Plan are available in the Presidents Office


## Advisory Committees

Advisory Committees lend assistance to the College in the development of occupational programs that will prepare students for useful and productive lives. The committee members make known the occupational needs as they pertain to employable skills in the specific occupation and in the geographic area of the College, and report on changing technology as it might affect the College programs.

Advisory Committees are extremely important in the development of a two-way system of understanding and communication and for the partnerships that are necessary between the College and the community.

# Instructional Alternatives 

## Economic and Workforce Development - Contract Education

Contract Education offers customized, quality classes and timely workshops to local business and industry on campus or at the workplace. This program can augment a company's current training program or develop specialized classes to meet professional needs. For further information please contact Judith Trester at (818) 710-2549.

Pierce Business Center testing services include but are not limited to the following:

- Transportation Security Administration
- National Institute for Automobile Service Excellence
- Border Patrol and Port Security Testing


## ENCORE and OASIS Older Adult Program

ENCORE and OASIS joined in a partnership to provide older adult educational, cultural and wellness programs, and volunteer opportunities on the Pierce College campus.

ENCORE is a Pierce College non-credit program that provides lifelong learning designed specifically for older adults. The non-credit courses have no exams and no papers to write. Physical education, music, art, computer, personal finance, and personal development are among the curriculum offered each semester. ENCORE classes are free or have a nominal materials fee.

OASIS is a national educational organization dedicated to enhancing the quality of life for older adults. With challenging programs in the arts, humanities, wellness and volunteer service, OASIS creates opportunities for older adults to continue their personal growth and service to the community. OASIS classes have a nominal fee.

For a schedule of classes or further information, please contact the ENCORE/OASIS office at (818) 710-4163.

## Honors Program

The Pierce College Honors Program is designed for serious, motivated students. The program offers approximately 10 academically enriched general education courses each semester. These courses are challenging and enhance the academic skills necessary for successful transfer. For further information see the current Schedule of Classes or call (818) 719-6455.

## Eligibility

There are two basic eligibility requirements: grade point average and college-level writing ability. High school graduates need a 3.0 cumulative GPA, and continuing college students need a 3.25 GPA in all course work including 12 or more UC-transferable units. All students must qualify for College English (English 101) either by scores on the Pierce College English placement test, by passing prerequisite courses, or an appropriate AP examination score.

Please note: Honors certification is based on a 3.3 GPA in all UC transferable coursework completed. The 3.25 GPA is used for Honors Program eligibility only.

## Transfer

Honors Program students successfully transfer to colleges and universities across the country. However, we have a special arrangement with the UCLA College of Letters and Sciences Transfer Alliance Program. Students who complete at least 60 units in a pattern that satisfies both the UC lower division and major course requirements, complete at least eight (8) Honors classes or 24 Honors units including four (4) formal Honors classes within these 60 units, and maintain an overall grade point average of 3.3 in UC transferable units, are eligible for the TAP certification.

Satisfactory completion of the above guarantees priority consideration for admission to UCLA with junior standing. Similar agreements with UC Irvine, UC Riverside, UC Santa Cruz, Chapman University, Occidental College, CSU San Diego and CSU Fullerton are available.

## Application

To be admitted to the Honors Program you must be eligible for English 101, have completed 12 units of UC transferable coursework with a minimum GPA of 3.25 . Students coming directly from high school must also be eligible for English 101 with a minimum high school GPA of 3.0, file a completed Honors Program application, along with copies of appropriate transcripts and the English placement test results to the Honors Program office, FO 2800.

## Program Benefits

Students in the Honors Program have special Honors counseling, and recognition both on the transcript and at graduation.

In addition, Honors classes are limited to twenty-five students. All Honors students also receive the special services provided by membership in the UCLA Transfer Alliance Program whether or not they are planning to transfer to UCLA. These services include a free UCLA College Library card, tickets to cultural events, and much more.

## Instructional Television (ITV)

Each semester, the District-wide Instructional Television program of the Los Angeles Community College District presents, via television, a variety of transferable undergraduate level college credit courses.

Instructional Television courses are convenient, flexible and especially suitable for college students needing to supplement their on-campus program or to add classes for those times when campus attendance is not possible.

Students enroll by the telephone registration system or by mail, view telecourse lessons at home or at a campus Learning Resource Center, complete reading and study assignments, attend seminars held on weekends at a Los Angeles Community College near their home, and take a midterm and final exam.

An instructor with office hours and phone times is assigned to each telecourse. The students enrolled in Instructional Television classes keep in touch with faculty by telephone, voice mail, e-mail, U.S. mail, and fax, as well as at the seminars. Interested students are invited to contact Instructional Television at (818) 833-3594 or visit their web page at www.lamission.edu/ITV.

## International Education Program: Study Abroad Classes

College credit classes are offered by the International Education Program with instructors and classes selected from the Pierce College curriculum. Opportunities for study include a summer program in Marine Biology in Mexico and Arts and Culture in Florence, Italy. Partnership programs are established with other California Community Colleges, LA Valley College [Summer Paris] and West LA [Summer Spain \& Mexico]. The International Education Program demonstrates the commitment of Los Angeles Pierce College to furthering development of international and intercultural awareness. Call (818) 719-6444 for further information.

## The Pierce College Extension Program

Pierce Extension is the educational outreach program of the College offering community and continuing education classes as well as cultural and recreational activities through the Office of Community Services on a not-for-credit basis.

Community Education provides a community based program, opportunities for personal and professional development, skill improvement and upgrading, cultural enrichment and recreational enjoyment for all ages, emphasizing lifelong personal and professional growth.

These activities are offered in addition to Pierce College's instructional program and are not academic equivalents of regular credit classes or prerequisites for the traditional college program. Most programs are supported by participant fees and receive no direct general purpose tax funds.

Through the Extension Program, Pierce College hopes to serve your interests, and through you, our whole community. For a calendar of activities or further information, please contact the Extension Services Office at (818) 719-6425 or visit www.piercecollege.edu/community/extension.

## Pierce College Foster and Kinship Care Education

Pierce College Foster and Kinship Care Education (FKCE) offers continuing education for foster parents, relative caregivers, adoptive parents, and others who are interested in fostering or adopting children. Classes that satisfy "D" rate (to provide care for children who exhibit severe and persistent emotional and behavioral problems in a family home setting) and " F " rate (to provide care to medically fragile children in a family home setting) requirements are offered, as well as D and F rate pre-service for foster parents or relative caregivers to gain certification in those categories.

For a schedule of events or further information, please contact the Foster and Kinship Care Education office at (818) 710-2937 or visit www.piercecollege.edu/community/extension.

## PACE



## Program For Accelerated College Education

This is a dynamic program geared to meet the needs of working adults. PACE offers college credit courses scheduled around hectic work and family demands. The results have been amazing. Take a few minutes to learn more about this program which has changed the future for hundreds of Pierce students.

## The Full-Time College Transfer Program For Working Adults

- Earn an associate degree in two years.
- Choose from three fully transferable options:

1. Business
2. Educator Preparation
3. Transfer Studies

- Complete 12-14 units in each college semester.

PACE courses are transferable and accepted by all universities in the UC or CSU systems and most private colleges and universities in California.

## Offerings

| Business |  | Educator Preparation | Transfer Studies |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Accounting 1 | English 103 | Art 103 | History 41 | Anthropology 101 | History 2 |
| Accounting 2 | Geography 1 | Biology 3 | History 86 | Anthropology 102 | History 13 |
| Anthropology 101 | Geography 15 | Child | Linguistics 1 | Art 103 | Humanities 31 |
| Art 103 | Health 9 | Development 1 | Math 215 | Cinema 18 | Journalism 100 |
| Business 5 | History 13 | Computer | Philosophy 1 | Comp Sci 501 | Math 227 |
| CAOT 32 | Humanities 60 | Science 530 | Philosophy 6 | English 101 | Philosophy 20 |
| Computer | Math 227 | Education 203 | Physical Science 4 | English 103 | Political Science 1 |
| Science 530 | Math 245 | English 101 | Political Science 1 | Geography 1 | Psychology 1 |
| Economics 1 | Philosophy 20 | English 102 | Speech 101 | Geography 15 | Sociology 1 |
| Economics 2 | Political Science 1 | Geography 2 |  | Health 11 | Speech 101 |
| English 101 | Speech 101 | Health 9 |  | History 1 |  |
|  |  |  |  |  |  |

Or prepare for any of these programs with Bridge classes Math 112, Math, 115, Math 125
English 21, English 28, English 101.
Learn whether you already qualify for this fast-paced program by picking up a program brochure in the PACE office. We are located in Faculty Office 2800, and are open between 8 a.m. - 6 p.m., Monday through Thursday and Friday, 8 a.m. - 4 p.m. Our phone number is (818) 719-6485, or send e-mail to paceprogram@piercecollege.edu

## Equal Employment Opportunity

The policy of the Los Angeles Community College District is to implement affirmatively equal opportunity to all qualified employees and applicants for employment without regard to race, color, national origin, ancestry, religion, creed, sex, pregnancy, age, disability, marital status, medical condition (cancer related), sexual orientation, or veteran status. Positive action will be taken to ensure that this policy is followed in all personnel practices, including recruitment, hiring, placement, upgrading, transfer, demotion, treatment during employment, rate of pay or other forms of compensation, selection for training, layoff, or termination. (Board Rule 101301).

Inquiries regarding Equal Employment Opportunity at Los Angeles Pierce College should be directed to the College Compliance Officer, Sylvia Silva at (818) 710-2508.

## Sexual Harassment Policy

The Los Angeles Community College District has a policy which provides formal and informal procedures for resolving complaints. Copies of the policy and procedures may be obtained from the Compliance Officer, Sylvia Silva at (818) 710-2508, or by calling the District Office of Diversity Programs at (213) 891-2315.

It is the policy of the Los Angeles Community College District to provide an educational, employment, and business environment free from unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment. Employees, students, or other persons acting on behalf of the District who engage in sexual harassment as defined in this policy or by state or federal law shall be subject to discipline, up to and including discharge, expulsion or termination of contract.

## Academic Freedom

Academic freedom insures the faculty's right to teach and the student's right to learn. The discussion of sexual ideas, taboos, behavior or language which is an intrinsic part of the course content does not constitute sexual harassment. The Board of Trustees reaffirms its commitment to academic freedom, but recognizes that academic freedom does not allow discriminatory or harassing conduct.

## Definition of Sexual Harassment

Harassment occurs when unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature:

1. is made either explicitly or implicitly a term or condition of an individual's employment, academic status, or progress;
2. has the purpose or effect of having a negative impact upon the individual's work or academic performance, or creating an intimidating, hostile, or offensive work or educational environment;
3. is used as the basis for employment or academic decisions or any decision affecting the individual regarding benefits and services, honors, programs, or activities available at or through the District, regardless of submission to or rejection of such conduct.

For the purpose of further clarification, sexual harassment may include, but is not limited to the following type of conduct:

- making unwelcome, unsolicited written, verbal, physical and/or visual contact with sexual overtones
- verbal harassment or abuse
- unwelcome pressure for dates
- disparaging remarks about one's gender
- sexist jokes about one's clothing, body, or sexual activities
- deliberate blocking of physical movement
- obscene gestures
- demands for sexual favors accompanied by implied or overt threats
- display of sexually suggestive objects, cartoons, posters
- request for sex in exchange for grades, earned or deserved, letters of recommendation, employment opportunities
- making reprisals, threats of reprisal, or implied threats of reprisal following rejection of harassment by suggesting or actually withholding grades, a promotion recommendation, scholarship recommendation or a poor performance evaluation


## Complaint Procedure

When an employee, student, or other individual feels, perceives, or has actually experienced conduct that may constitute sexual harassment, it is that person's responsibility to inform the individual engaging in such conduct that the behavior being demonstrated is offensive and must stop.

When it is not possible or practical to confront the person directly, or if the situation continues, the conduct must be reported to the Sexual Harassment Compliance Officer at the work site.

Complaints may be filed by persons other than the person who is the recipient of the unwanted conduct.

The Sexual Harassment Compliance Officer shall receive the complaint, make notes, conduct a preliminary investigation, and notify the alleged offender, the appropriate college President or District administrator, and the Director of the Office of Affirmative Action Programs, within five (5) business days of a potential violation of this policy.

During the process of the investigation, the complainant/victim and the alleged offender have the right to be represented, at all times, by a representative of their choice.

Each college President shall designate a Sexual Harassment Compliance Officer. The Chancellor shall designate the SHCO at the Educational Services Center.

Each college President, in consultation with the ASO President, shall designate an employee who shall serve as Advocate for Students.

The District shall provide annual notice of the summary of this policy to each District employee. A summary of the policy shall be published in each college catalog and class schedule.

The Director of Diversity Programs shall be assigned the responsibility of the District compliance. The Director shall provide mandatory education and training programs on sexual harassment as stipulated in this policy.

Necessary forms to file a complaint of sexual harassment may be obtained from the Sexual Harassment Compliance Officer at the site, and from the Office of the Vice President of Student Services. Anyone who believes that they are a victim of sexual harassment may also call (213) 891-2315.

The entire policy and procedures shall be prominently posted with other official District announcements.

## Pre-Complaint Questionnaire

Prior to filing a formal complaint, the complainant must pursue informal resolution by filing a pre-complaint questionnaire. This process is limited to 30 days.

## False Allegations

Anyone who files a pre-complaint questionnaire or a complaint in which he/she knowingly makes false allegations of facts shall also have violated this policy and shall be subject to applicable disciplinary action.

## Formal Complaint

If an informal resolution is not reached within thirty (30) days the formal process will begin at the request of the complainant. In conducting the investigation, the Sexual Harassment Compliance Officer will take every reasonable step to ensure due process for all parties. The Compliance Officer shall, within the prescribed time frame, make appropriate notification to the complainant, the alleged offender, and to the District administration.

Within sixty (60) calendar days the SHCO shall complete the investigation and provide a written report to the college President at his/her college site, or at the District Office, the Vice Chancellor or the Chancellor. A copy of the report shall be sent to the Director of Diversity Programs.

The College President, or at the District, the Vice Chancellor or the Chancellor, shall independently assess the investigative report and render a decision. Prior to making the decision, the alleged offender with a representative of his/her choice shall have the opportunity to make an oral statement, within fifteen (15) calendar days from the receipt of the SHCO report.

By certified mail, a written decision shall be mailed to the complainant, the alleged offender, with a copy to the Director of Diversity Programs.

## Appeal

If the complainant/victim is not satisfied with the Written Decision, he/she may appeal to the District's Board of Trustees by submitting a written appeal to the Chancellor's Office within fifteen (15) days. The appeal shall state with particularity the basis for the appeal.

The Chancellor shall present the written appeal, the Written Decision and the investigative report to the Board of Trustees in closed session. The Board of Trustees decision shall be the District's Final Written Decision.

The complainant/victim has the right to file a written appeal with the State Chancellor's Office of the California Community Colleges within thirty (30) days of this Final District Decision.

## Additional Remedies

The complainant or alleged victim may pursue independently civil law remedies, including but not limited to injunctions, restraining orders, or other orders. An individual who believes that he/she is the victim of sexual harassment may also file a complaint with the Department of Fair Employment and Housing, The Equal Employment Opportunity Commission, the Office for Civil Rights, United States Department of Education, whether or not the complainant chooses to utilize the District's internal procedure.

## Confidentiality

All persons involved in investigation of complaints shall maintain the confidentiality of the matters discussed, except as may be required or permitted by law, which include the rules and regulations of the District.

A complete record of each complaint and investigation shall be kept by the Director of Diversity Programs.

The Written Decision regarding the results of the investigation shall be placed in the personnel file of each employee involved as an alleged offender, alleged victim or complainant.

## Disciplinary Procedure

Disciplinary action, if any, shall be pursued in accordance with the alleged offender's due process rights, as defined by law, the Board Rules, the Personnel Commission, and/or any applicable collective bargaining agreement or Memoranda of Understanding.

Disciplinary action shall include, without limitation, verbal warning, probation, suspension or expulsion, letters of reprimand, Notices of Unsatisfactory Service, suspensions, demotions or dismissals.

## Retaliation

Anyone who makes a complaint, or participates in any action authorized under this policy, shall not be subject to retaliatory action of any kind by any employee or student of the Los Angeles Community College District.

## Sexual Assault

The Los Angeles Community College District is committed to providing a safe environment for its students, faculty, and staff. The Los Angeles Community College District Board of Trustees condemns any act of sexual assault committed on any of its facilities. In the event of sexual assault committed on grounds or in facilities maintained and/or used by the District, any victim of a sexual assault who is one of the District's students, faculty, staff, or visitors shall promptly receive appropriate treatment and full and accurate information. Individuals who commit sexual assault while on properties within the control of the District shall be subject to appropriate criminal prosecution and/or District disciplinary procedures.

Confidentiality is fundamental to all aspects of cases dealing with sexual assault. The names of sexual assault victims shall not be revealed by persons responsible for implementing and enforcing the provisions of this Chapter, except with the consent of the victim.
Victims of sexual assault may obtain a list of referrals to community agencies from the College Police office.

## Admission \& Registration Information

## Enrollment Process: How to Register for Classes

## New Students

## 1. Complete Application

To receive the earliest possible registration appointment, apply online at www.piercecollege.edu. International students must complete their admissions process through the International Students Office. Concurrent students can also apply online. Concurrent high school students must also bring a completed Concurrent Enrollment Permission form to the Admissions Office. The Information Desk has reference copies of the application in Spanish, Farsi, Japanese, Vietnamese, and Korean.

## 2. Financial Aid

To receive the best possible aid package continuing and new students should have filed their Free Application for Federal Financial Aid (FAFSA) between January 1, 2007 and March 2, 2007 to be considered for Priority Funding for the academic year 2007-2008. Students are still encouraged to apply after March 2nd but funds will be limited. For faster processing apply on line at www.fafsa.ed.gov.

## 3. Assessment

Complete the English or English as a second language (ESL) and mathematics placement process. This process helps place you in classes where you are most likely to succeed. You should complete the assessment process as early as possible. All sample tests can be downloaded from the internet, including English, Math and Chemistry exams, at www.piercecollege.edu/students/assess/. Test scores and/or course work from other colleges might be used in place of the Pierce Assessment if accepted by the Assessment Center. Questions? Contact the Assessment Center at 719-6499.

## 4. On-line Orientation

We have developed an on-line orientation for you. It can be accessed via the Pierce College homepage at www.piercecollege.edu. Your appointment will be e-mailed to you or you may access it via our phone and Internet registration systems.

## 5. Registration

Enroll in classes on line at www.piercecollege.edu or by using the STEP telephone registration system. You will be enrolled in the classes of your choice or placed on a waiting list if the class is full and waiting list space is available. Write down and save your confirmation numbers. You can print your semester schedule if you enroll on line.
6. Payment

Payment is due when you register. You may pay with cash, check, or credit card. You may pay online or by phone. A hold will be placed on your record if you do not pay when you register. A Registration/Fee Receipt and a Pierce College picture ID card will be issued to you when you pay. If you pay online or by phone or mail, you may pick up your picture ID in Copy Tech in the College Services Building.

## Continuing Students

You are a continuing student if you were active in classes during either the previous Fall or Spring semesters.

## 1. Registration Materials

Continuing students will receive a letter with their priority telephone/internet registration appointments for registration during the month before finals. Appointments are also on the address label of the Schedule of Classes mailed to your home. Instructions are in the center of the Schedule of Classes. Your priority registration appointment is also available on the STEP telephone system and the Pierce web site.

## 2. Financial Aid

To receive the best possible aid package continuing and new students should have filed their Free Application for Federal Financial Aid (FAFSA) between January 1, 2007 and March 2, 2007 to be considered for Priority Funding for the academic year 2007-2008. Students are still encouraged to apply after March 2nd but funds will be limited. For faster processing apply on line at www.fafsa.ed.gov.

## 3. Assessment/Prerequisites

You may need to meet certain course prerequisites prior to registration. Check individual course requirements. All sample tests can be downloaded from the internet, including English, Math and Chemistry exams, at www.piercecollege.edu/students/assess/. Bring proof of prerequisite courses completed at other colleges to the Assessment Center in the Campus Center. Questions?
Call 719-6499.
4. Counseling

Make an appointment well in advance of registration. Ask about degree and major requirements. Visit the Transfer Center.

## 5. Registration

Use your priority registration appointment to register by telephone or internet. Follow the instructions on the Telephone Registration Worksheet on the white pages in the center of this publication.
Write down and save your confirmation numbers.

## 6. Payment

Payment is due when you register. You may pay with cash, check or credit card. You may pay on-line or by phone. A hold will be placed on your record if you do not pay when you register. A Registration/Fee Receipt will be issued to you when you pay. If you pay online or by phone or mail, your Registration/Fee receipt will be mailed to you.

## Admission Eligibility

You are eligible to attend Pierce College if you meet any of the following criteria:

1. You have graduated from high school or have successfully passed the California High School Proficiency Examination.
2. You are over 18 years of age and are no longer attending high school and are capable of profiting from the instruction offered.
3. You are under 18 years of age and not a high school student, with special permission as a full-time student.

## 4. CONCURRENT ENROLLMENT AT PIERCE COLLEGE

 AND HIGH SCHOOLAs a high school student you may enroll concurrently at Pierce College. In addition to the application for admission, you must submit a separate concurrent enrollment form, approved by your high school counselor and your parents. Students in less than 9th grade require special processing. Call (818) 719-6448 for details. Concurrent students are given the last priority for registration.

Information regarding other eligibility criteria and/or admission procedures is available in the Office of Admissions and Records.

## International Student Admissions

All F-1 visa students seeking admission to Pierce College must apply through the International Students Admissions Office. Applications may be obtained by:

- phone - (818) 710-2511 (Admissions Room 1001)
- email—intlstu@piercecollege.edu
- FAX-(818) 347-8704
- website—www.piercecollege.edu/students/iso/apply.html


## Application Dates:

Fall Semester
January 16, 2007 through May 15, 2007
Spring Semester
May 7, 2007 through October 15, 2007
Students are advised to apply 6-9 months in advance of the semester they wish to begin. Students will be considered for the semester following application processing.

The applicant must provide:

1. International students application form
2. Processing fee (cashier's check or money order made out to "Los Angeles Pierce College") - no cash, credit cards or personal checks can be accepted
3. Confidential financial affidavit and bank verification letter
4. Official transcripts of all high schools and colleges/universities attended in all countries, including U.S.A.
5. Proof of English proficiency can be shown by the following: TOEFL, IELTS, STEP Eiken, or CSUN IEP Level 9
6. Students applying from within the U.S.A. must provide a copy of their passport information page, current visa, and I-94
7. Transfer students must have our Transfer Verification Form completed by their current school and provide a copy of your current I-20AB
8. Three passport size photographs

All applicants are evaluated on their potential to be successful at this college. When the student is admitted, an I-20 is issued to the student by this office. This document can be used by the student to obtain an F-1 visa from a United States embassy outside of the United States. Students who are already in this country will use the new I-20 to change their visa status or complete their transfer process from another educational institution.

Information about immigration regulations governing a "change-ofstatus" to an F-1 visa from another visa may be obtained in the International Students Admissions Office.

See also International Students Program, page 43.

# Procedures For Admission And Registration 

## Admission

Apply online or submit an application for admission in person. When applying in person please bring picture ID. Application forms are available at the Information Desk beginning on the first day of each application period and online. Applications are accepted as indicated in the schedule of classes. See the College Calendar in the schedule of classes for deadlines for the submission of applications.
The Admissions and Records Office is located in the Administration Building. Office hours: Monday through Thursday, 8:00 am - 7:30 pm and Friday, 8:00 am - 3:00 pm.
Every student wil be assigned a student ID number when they apply. Providing your Social Security number is optional. It is only required for students applying for financial aid and/or who will be eligible for student tax credits.

Complete all required information. All information requested on the application must be provided. The applicant must declare under penalty of perjury that all information on the application is correct. All information is subject to verification; falsification or withholding of information shall constitute grounds for dismissal.


## Residence Requirements

## California Residence Requirement

To attend any of the Los Angeles Community Colleges as a resident of California, a student is required to have been a California resident for more than one year immediately preceding the Residence Determination Date. The "Residence Determination Date" is that day immediately preceding the opening day of instruction of the semester, winter, or summer session. Residence is defined as a union of act and intent.

## Non-Resident

A non-resident student is one who has not had residence in the State of California for more than one year immediately preceding the Residence Determination Date. Physical presence alone is not sufficient to establish California residency nor is intent when not coupled with continuous physical presence in the State. Certain nonU.S. citizens are permitted to establish residency and certain others are not. Check with the Admissions Office regarding your particular status.

Residency classification is made when the application is accepted. Students may petition for a change of classification during the semester in question.

A student classified as a non-resident will be required to pay nonresident tuition fees as established by the District Board of Trustees.

## Non Resident Fee Waiver

Students who are classified as non-residents may be eligible for a waiver of non-resident tuition if they meet the following criteria:

- Attended a California high school for at least 3 years.
- Graduated from a California high school
- Do not have a non-immigrant visa status with U.S. Citizenship and Immigration Services. (USCIS)

A waiver form is available in the Admissions and Records Office.

## Residence Reclassification

Students who have been classified as non-residents must petition to be reclassified as residents before the start of any semester if they feel their status has changed. Non-resident students applying for reclassification as residents must also show financial independence for the past three years. The Residence Reclassification form is available in the Admissions Office or online at www.piercecollege.edu under Frequently Asked Questions/Forms.

## Residence Appeal

A student may appeal the residence classification determined by the College. The appeal must be made within 30 calendar days of receipt of notification of the residence classification from the Admissions Office. The appeal must be submitted in writing to the College Admissions Officer who will forward it to the District Residency Appeal Officer.

## Matriculation

Matriculation - What is it?

Matriculation is a process designed to assist students in achieving their educational goal at Pierce College. It is an agreement between the College and the student. Pierce College agrees to provide an organized process of admission, orientation, assessment, counseling, and student progress follow-up. The student agrees to declare a specific educational goal, attend class, and complete all assigned coursework.

## What is the purpose of Matriculation?

The purpose of Matriculation is to ensure that students complete their college courses, persist to the next academic term and achieve their educational objective. Matriculation provides students with easy access to the College's programs and services. These services can promote higher grades, completion of more classes, and increased persistence from semester to semester.

## Who is eligible for Matriculation?

All first-time students who have declared a goal of earning a certificate, AA, or transferring are subject to matriculation.

## Matriculation at Pierce College

Matriculation is a campus-wide program. Success is measured by the attainment of the student's stated educational goal or objective. The following are the components of Matriculation:

Assessment All students who go through the matriculation process complete the assessment process. This assessment takes $31 / 2$ hours to complete and covers reading comprehension, grammar, essay writing, and math. Practice tests are available to help students prepare for the exam. The assessments help place students in classes where they are most likely to succeed. Placement recommendations are advisory and intended to assist students.

On-line Orientation Completion of our on-line orientation is recommended for all new students. You can access the orientation via the Pierce College homepage at www.piercecollege.edu. You will find information on the programs we offer, transfer requirements, academic planners, and student services here on campus. Please use this as a resource throughout your time here at Pierce.

Counseling The Counseling Department can help you with your educational plan, major, transfer and career exploration, and personal counseling. Please plan to visit the Counseling Office at least once each semester.

Follow-up After enrolling for the first semester, students will continue to receive follow-up services through the Counseling Department, Transfer and Career Center, and Early Alert program. These services will include help with planning programs for each semester, preparing to transfer, and earning an Associate degree. In addition, the Early Alert program helps identify students who begin encountering academic difficulty early in the semester.

Matriculation Exemptions At the time of application, all students are classified as exempt or non-exempt from various matriculation components. The exemption policy is listed below:

## Assessment Exemption Criteria:

(1) Students who have already earned an A.A./A.S. degree or higher.
(2) Students who are attending Pierce with a goal of personal interest and who have completed fewer than 16 units of college credit.

Note: Students who have completed assessments or prerequisite courses at other colleges should present this documentation for verification to the Assessment Center Director. (Verification must be presented before an exemption can be granted).

## Orientation Exemption Criteria:

(1) Students who have already earned an A.A./A.S. degree or higher.
(2) Students who are concurrently enrolled at a four-year college or university and who have completed fewer than 16 units of college credit.
(3) Students who are concurrently enrolled in the 12th grade or below and who have completed fewer than 16 units of college credit.
(4) Students who are attending Pierce with a goal of personal interest and who have completed fewer than 16 units of college credit.

## Counseling/Advisement Exemption Criteria:

(1) Students who have already earned an A.A./A.S. degree or higher.
(2) Students who are attending Pierce with a goal of personal interest and who have completed fewer than 16 units of college credit.

## Matriculation Challenges

Students wishing to challenge any matriculation component should request a waiver form from the Assessment Center in the Campus Center. Please fill out the form, then return it to the Assessment Center. Please retain a copy of the waiver.

Students with complaints or challenges to any matriculation provisions may appeal to the Matriculation Coordinator in the Assessment Center or call (818) 719-6499 for more information.

## Alternative Matriculation Services

Pierce College provides the following alternative matriculation services:

1. Pierce has translated the application questions into various languages. At the present time, information is available in Farsi, Japanese, Vietnamese, and Spanish at the Information Desk.
2. For a physical, visual, or communication limitation that might require special assistance for any matriculation component, please come to the Special Services Department for more information on how the college can provide accommodations for you.

## English Placement Process

The results of the English placement process or English Enrollment Authorization Form must be on file in order to enroll in English 21, 28, English 82, 84-87, or English 101 and above. Authorizations for students registering by telephone will be checked automatically on-line.

All students planning to enroll in an English course for the first time are expected to complete the English placement process at the Pierce College Assessment Center (Campus Center). Contact the Assessment Center at (818) 719-6499 for an appointment and sample test information. Placement results or prerequisite courses taken at other colleges may be presented to the Assessment Center to be substituted for the Pierce English placement process.

Placement recommendations made through the English placement process are intended to assist students with enrolling in classes where they are most likely to succeed. Upon completing the process, students are informed of their placement and given their authorization to enroll. Students seeking authorization to enroll in a course other than that recommended by the assessment test must meet with an English Department advisor. Review is essential because the test cannot be taken again for one year. Contact the Assessment Center for hours.

Students need to provide evidence of prerequisite completion either through coursework in the Los Angeles Community College District, by completing the Pierce English placement process, or through transcripts from other colleges presented at the Assessment Center.

## Mathematics Placement Process

All students who have not completed a college mathematics course must complete the mathematics placement process at the Pierce College Assessment Center (Campus Center). Contact the Assessment Center at (818) 719-6499 for an appointment and sample tests. Review is essential because the test cannot be taken again for six months.

Placement tests are given at four levels: Algebra Readiness, Elementary Algebra, Intermediate Algebra, and Precalculus. Upon completing the test, students are advised of their recommended placement and given an authorization to enroll in that course. Students who wish to challenge the recommendation of the assessment test should consult a Mathematics Department advisor. Contact the Assessment Center for hours.

Note: Results of the English and Mathematics placement process cannot be used to satisfy the English and Math competency requirements for graduation.

## Registration Policies

## Open Enrollment

Unless specifically exempted by law, every course for which State aid is claimed is fully open to any person who has been admitted to the College and who meets the appropriate academic prerequisites.

## Registration

Registration is the process whereby the student is entered onto the College roll for the semester and is enrolled in specific classes. All students will be issued a Registration/Fee Receipt as the last step in the registration process.

## Appointments to Register

Upon acceptance of a student's application and completion of matriculation requirements, new students will be issued an appointment to register. Registration is by appointment only. Students are urged to file their applications as early as possible since appointments are given out on a first-come first-served basis.

## Adding and Dropping Classes

## Adding Classes

Only students who have been admitted to the college and are in approved active status may add or attend classes.

Admitted students who wish to add a class once the semester begins must obtain an add card from the instructor or the College Add Desk. It is the student's responsibility to have the add processed before the last day to add, which is listed in the college semester calendar.

## Dropping Classes

Students wishing to drop one or more classes must do so through the Admissions Office by filing a DROP CARD or by using the STEP telephone registration system, or the Pierce web site.

It is the student's responsibility to officially drop from class by submitting a drop card to the Admissions Office or using the STEP telephone system or the Pierce web site. Students must drop by the end of the second week of semester-length classes to avoid fees. Any drops or exclusions that occur between $30 \%$ of the time the class is scheduled and $75 \%$ of the time the class is scheduled will result in a "W" on the student's record which will be included in the determination of progress probation. Drops are not permitted beyond $75 \%$ of class meeting time.
A grade (A, B, C, D, F, CR, INC, or NC) will be assigned to students who are enrolled past the last day to drop even if they stop attending class, except in cases of extenuating circumstances. After the last day to drop students may withdraw from class upon petition demonstrating extenuating circumstances and after consultation with the appropriate faculty.

## Cancellation of Classes

The College reserves the right to discontinue any class with insufficient enrollment.

## Course Prerequisites

It is the student's obligation to know and meet course prerequisites. These are stated in the catalog description of each course.

## Credit for Prerequisites

Students may not concurrently enroll in and receive credit for an advanced course and its prerequisite(s). Students may not enroll in and receive credit for the prerequisite(s) to an advanced course if they have previously completed the advanced course.

Violation of this regulation will result in exclusion from class and/or denial of course credit.

Pierce College Matriculation Policy On Prerequisites, Corequisites, Recommended Preparation, And Limitations On Enrollment

The faculty has identified knowledge and skills that are necessary for success in certain classes. At registration, students need to determine if any courses require previous knowledge. The catalog and schedule of classes use four terms to show if such knowledge is required:

PREREQUISITE: means a condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program (i.e., a course that must be passed, or a requirement that must be met before enrolling in a given course). Students will not be permitted to enroll in such courses and programs without the appropriate prerequisite.
COREQUISITE: is a condition of enrollment consisting of a course that a student is required to take simultaneously in order to enroll in another course (i.e., a course that must be taken at the same time as another course.)

RECOMMENDED PREPARATION: means a condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program (i.e., preparation that is helpful, but not required, before enrolling in a given course).

LIMITATIONS ON ENROLLMENT: A prerequisite necessary to protect a student's health and safety and the health and safety of others. (see prerequisite). Limitations on enrollment may also apply to certain courses (e.g., performance, honors, and special programs) if comparable courses are provided.

## Prerequisite Challenge Procedures

A student may challenge a prerequisite or corequisite by filing a prerequisite challenge form. The reasons for seeking a challenge may include one or more of the following:

1. A prerequisite is not reasonably available;
2. The student believes the prerequisite is not valid or necessary for the success in the course for which it is required;
3. The student believes the prerequisite is discriminatory or being applied in a discriminatory manner, or
4. The student has the documented knowledge or ability to succeed in the course without meeting the prerequisite.
5. The student believes it to be unfounded that he or she might cause a health or safety hazard.

## The steps for filing a challenge are outlined below:

1. Obtain and complete a challenge form (PC-1), accompanied by all necessary documentation, from the Assessment Office (Campus Center), or download at: www.piercecollege.edu/students/assess
2. Return the completed form with documentation to the Assessment Office. A prerequisite challenge requires written documentation (e.g. proof of alternative course work, explanation of background or abilities which adequately prepare the student for the course, etc.) before it can be processed.
3. You will be notified by the Assessment Center regarding the decision.

Students with questions regarding filing a prerequisite challenge may contact the Assessment Office in the Campus Center or call (818) 719-6499 for information or appeal procedures to the challenge process outlined above.

## Unit Maximum

The maximum study load is 18 units during a regular semester. The normal class load for students in the fall or spring semester is from 12 to 18 units a semester for full-time students. A college program of 15 units is equal to at least a 50 -hour work week for most students. Students who desire to take 19 or more units may file a Petition for Excess Units in the Dean of Admission's Office during the week before the semester begins or the first two weeks of the semester.

Those students who will be employed while attending college should consider reducing their programs accordingly. It is suggested that those students who are employed full-time should enroll in no more than one or two classes or 9 units maximum.

## Restricted Programs

Students may be required to enroll in a restricted program if their grades or test results indicate that this is in their best interest. The College may limit either the number of units in which a student may enroll or may specify certain subjects as a condition of enrollment. Students who violate such requirements will be subject to dismissal.

## Enrollment Conflicts

Concurrent enrollment in more than one section of the same course during a semester is not permitted, with the exception of certain Physical Education classes on a limited basis.

Concurrent enrollment in courses which are cross-referenced to each other is not permitted (i.e., courses designated "same as" in the District Directory of Educational Programs and Courses). Violation of this regulation will result in exclusion from class and denial of course credit in both courses.

Enrolling in classes scheduled or conducted during overlapping times is not permitted. In addition to exclusion from both classes and denial of credits, violators will be subject to disciplinary action (See Standards of Student Conduct).

## Auditing Classes

Students may be permitted to audit a class under the following conditions:

1. Payment of a fee of $\$ 15$ per unit. Fees may not be refunded or transferred. Students enrolled in classes to receive credit for ten or more semester units shall not be charged a fee to audit three or fewer semester units per semester.
2. Students auditing a course shall not be permitted to change their enrollment in that course to receive credit for the course.
3. Priority in class enrollment shall be given to students desiring to take the course for credit.
4. Permission to enroll in a class on an audit basis is at the instructor's discretion.
5. Participation in class activities by student auditors will be solely at the discretion of the instructor, who may provide a written statement of the extent of participation allowed beyond observation.
6. Concurrently enrolled high school students must pay any audit fees.
7. Financial aid does not cover auditing.
8. Audit enrollments must be processed in the Admissions Office by the last day to add.


## Student Fees

## Enrollment Fee

Enrollment fees are set by the California State Legislature and are subject to change.

Section 72250 and Section 72252 of the State Education Code requires Community Colleges to charge enrollment fees of each student enrolling in college. Effective January, 2007 the fee prescribed by these sections is twenty dollars (\$20) per unit per semester with no maximum per semester. If you take ten units, the cost will be $\$ 200$. If you take fifteen units, the cost will be $\$ 300$ and so forth.

Concurrently enrolled K-12 students are not charged the enrollment fee or non-resident tuition.

If at the time of enrollment you are receiving benefits under the Temporary Assistance for Needy Families (TANF), the Supplemental Security Income/State Supplementary Program, or the General Assistance Program, the enrollment fee will be waived. For information regarding the procedure for requesting a waiver, contact the Financial Aid Office prior to the date of your enrollment.
Financial aid may be available to students who meet the qualification requirements. Students with questions concerning financial aid eligibility should contact the College Financial Aid Office. Applications should be submitted as soon as possible at www.fafsa.ed.gov.

## Enrollment Fee Assistance

The college offers enrollment fee assistance to students who are unable to pay the enrollment fee. Students should complete the Board of Governors' Enrollment Fee Waiver application (available inside the Schedule of Classes, as well as at the Information Desk in the Administration Building and at the College Financial Aid Office) and submit it to the college Financial Aid Office to process.

The Enrollment Fee Waiver is available to students who receive Temporary Assistance for Needy Families (TANF) (formerly AFDC), General Relief (GR), or Supplemental Security Income (SSI), dependents of deceased or disabled veterans of the U.S. Military, and students whose house-hold size and family income fall within the following limits:

| Number in Household <br> (including yourself) | Total 2006 Family Income <br> (Adjusted Gross Income <br> andlor Untaxed Income) |
| :---: | :---: |
| 1 | $\$ 14,700$ or less |
| 2 | $\$ 19,800$ or less |
| 3 | $\$ 24,900$ or less |
| 4 | $\$ 30,000$ or less |
| 5 | $\$ 35,100$ or less |
| 6 | $\$ 40,200$ or less |
| 7 | $\$ 45,300$ or less |
| 8 | $\$ 50,400$ or less |
| + | Add $\$ 5,100$ for each <br> additional member |

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## Fee And Refund Schedule - Fall And Spring Semesters

 (Effective Fall Semester, 2007)| TYPE OF FEE | AMOUNT | REFUND DEADLINE |
| :--- | :--- | :--- |
| Enrollment Fee <br> Subject to change by <br> the California Legislature$\$ 20$ per unit | End of the second week of the semester <br> (Deadline for short term classes will be <br> different for each class) |  |

## Non-resident Tuition

(All non-resident students must pay the $\$ 20$ per unit enrollment fee in addition to non-resident tuition. Non resident tuition is due upon registration.
Students from
another State: $\quad \$ 173$ per unit End of the second week of the semester
Students from another country:
$\$ 183$ per unit
(Deadline for short term classes will be
International
Student (F1 VISA)
Application Fee: $\quad \$ 35$
SEVIS: \$25
International Student
Medical Fee (IMED): \$70/mo
(Spring 2008 and later rate undetermined)
$\$ 4206 \mathrm{mo} /$ Coverage
Health Services Fee $\$ 11.00 \quad$ End of the second week of the semester
Audit Fee
$\$ 15$ per unit
NOT REFUNDABLE OR TRANSFERABLE enrolled in 10 units or more may audit up to 3 units without charge)

| Student Representation Fee | \$1 | End of the second week of semester when student withdraws from all classes |
| :---: | :---: | :---: |
| Parking Fee | \$20 | End of the second week of the semester |
| Associated Students <br> Organization <br> Membership Fee |  | End of the second week of the semester - \$7 |
| Other Fees |  |  |
| Emergency Processing of Transcript <br> or Verification of Enrollment |  |  |
| Verification of Enrolln | ent* | \$3 |
| Record of Work in Pro | gress* | \$3 |
| Transcript* |  | \$3 |
| * The first two are free |  |  |

## CHECK ACCEPTANCE POLICY

Check Types Accepted - The Electronic Check Service only accepts: Personal checks
Check Types That Are Ineligible - In Accordance with the NACHA rules, the Electronic Check Service does not accept:

- Checks not pre-printed • Insurance checks
- Business/Corporate checks
- Payroll checks
- Third - party checks
- U.S. Treasury checks
- Government checks

Please note that a $\$ 10$ returned check charge is assessed for a check returned to the Business Office unpaid by the bank for any reason. A stop payment order on a check does not constitute an official withdrawal nor does it release the student's financial obligation for the fees. A student with an unpaid financial obligation will not be able to register for subsequent semesters.
All fee refunds must be claimed in person at the Business Office.

## Enrollment Fee Refund Policy

For full term courses: the student will receive a full refund up to the end of the second week of classes. After that date, there will be no refunds unless a class is cancelled or rescheduled by the College administration. After the second week of the semester, fees will not transfer when the student adds and drops, whether or not the student has paid. Students who enroll and do not drop classes by the end of the second week of the semester will remain liable for all fees.

For short term courses: the student will receive a full refund up to the end of a period of time equal to $10 \%$ of total class time. There will be no refunds after that, unless the student must drop a class because it is canceled or rescheduled by the administration.

## Health Services Fees

The Los Angeles Community College District charges an $\$ 11.00$ mandatory health fee for the Fall and Spring semesters and $\$ 8.00$ for the Summer and intersession, payable to one campus only, to cover the costs of health centers at each college. Due to recent state legislative changes, beginning in the Fall 2006 semester, the student health fee will no longer be waived for Board of Governor Grant recipients. Payment of the health fee can be made at the Business Office each semester. This fee enables students to take advantage of the on-campus health center located in the Campus Center. Please call (818)710-4270.

## Student Representation Fee

A $\$ 1$ Student Representation Fee per semester is due at the time of registration. The fee was established to provide for the support of student representatives involved in governmental affairs.

## Non-Resident Tuition Fee

The 2007-08 tuition fee for non-resident students is $\$ 173$ per semester unit for students who are non-residents from another state; \$183 per semester unit for students who are non-residents from a foreign country. Tuition must be paid at the time of registration. This fee is subject to change each academic year.

Concurrently enrolled K-12 students are waived non-resident tuition if coded as non-residents, as long as they enroll in 11 units or less within the LACCD.

Please note: Non-resident students are also required to pay the community college enrollment fee. Non-resident tuition is due upon registration. Students must drop classes by the refund deadline in order to avoid being charged the enrollment fee and the nonresident tuition fee. In addition, after the refund deadline, fees will not transfer when students add and drop classes, whether or not fees have been paid.

## Non-Resident Tuition Refund Criteria and Schedule

Non-resident students who formally drop part or all of their enrollment may request a refund of previously paid non-resident tuition in accordance with the schedule below. Such requests must be made in writing on a form provided by the District.

The date used for non-resident refund purposes is the date on which such requests are filed and time stamped, regardless of when separation may have occurred. All non-resident refunds will be made by mail.

Non-resident refunds will be computed as follows:

| CLASS TYPE | DATE REQUEST IS <br> TIME STAMPED | REFUND |
| :--- | :--- | :--- |
| Regular Length <br> (Fall, Spring, Summer) | Through <br> second week of <br> instruction | Full Tuition |
|  | After second week <br> of instruction | No Refund |
| Short Term <br> (Less than regular <br> length) | Through 10 <br> percent of class <br> length | Full Tuition |
|  | After 10 percent of <br> class length | No Refund |

## Parking Fee

A parking permit is required at all times when using campus parking facilities during regular school hours, 7 a.m. - 10 p.m., Monday through Thursday; 7 a.m. - 3 p.m., Friday; Saturday, 7 a.m. -3 p.m.

The Board of Trustees of the Los Angeles Community College District has authorized parking fees for all on-campus parking at district colleges.

A student's Pierce College parking decal is valid at each Los Angeles Community College District campus at which the student is currently enrolled in classes.

To encourage membership in the Pierce College Associated Students Organization, the College Administration has entered into an agreement with the ASO whereby individuals who both pay the District parking fee and join the Associated Student Organization will receive as a benefit of membership preferred parking privileges on campus. Students displaying a Preferred Student Parking Decal may park, if space is available, in all student parking lots, including the preferred lots $(1,6$, and 7 ), as well as legally allowable street parking space. The non-preferred parking lots (permit required) are 1,2 , and 4 .

## Fall and Spring Semester Parking Permit Fees

| Non-Preferred/Restricted District Permit | $\$ 20.00$ |
| :--- | ---: |
| A.S.O. Membership Fee | $\$ 7.00$ |
| Preferred/Non-Restricted Permit TOTAL FEE | $\$ 27.00$ |
| Charge to replace lost or stolen permit | $\$ 27.00$ |

Summer and Winter Session Parking Permit Fees

| Non-Preferred/Restricted District Permit | $\$ 7.00$ |
| :--- | ---: |
| A.S.O. Membership Fee | $\$ 3.00$ |
| Preferred/Non-Restricted Permit TOTAL FEE | $\$ 10.00$ |
| Charge to replace lost or stolen permit | $\$ 10.00$ |

Parking fees may be paid prior to the completion of registration. Students who do not elect to purchase the permit at that time may do so at any time during the semester at the campus Business Office located next to the Student Store.

# Scholastic Policies 

Each student who pays the parking fees will be issued a decal. These decals shall be hung from the rear view mirror.

It is the student's responsibility to make sure they know the current parking rules and regulations; if not sure, contact the Safety and Police Office. It is also the student's responsibility to make sure the current decal is visible to College Police Officers. The college is not responsible for lost permits under any circumstances.

Note: The issuance of a parking decal does not guarantee the student a parking space, only the opportunity to park in an appropriate lot if spaces are available. Any vehicle parked in the areas without the proper permit appropriately displayed will be cited.

## SEE CLASS SCHEDULE FOR FURTHER INFORMATION.

## Associated Student Membership Fee

Experience has demonstrated that student activities are essential features in the program of the College. These activities and programs are financed by money received from memberships in the Associated Students Organization. The charge is $\$ 7$ per semester.

The funds thus collected will be spent for the general welfare of the students in accordance with policies, rules, and regulations defined by the Board of Trustees. Membership in the Associated Students Organization is encouraged for all students, but is not mandatory.
Upon complete withdrawal from the college, the student may receive a refund of the Associated Student membership fee as follows:

| Fall and Spring Semesters |
| :---: | :---: |
| Amount |
| Paid |$\quad$| End of |
| :---: |
| 2nd Week |$|$| $\$ 7.00$ |  |
| :---: | :---: |
| Summer and Winter Session <br> 1st <br> Paid | $\$ 3.00$ |
| $\$ 3.00$ | Week |

Board of Trustees rules govern the collection, deposit and expenditures of these funds. All records are audited annually by representatives of the Board of Trustees.

## Instructional Materials

Students may be required to provide instructional and other materials for a credit or non-credit course. Such materials shall be of continuing value to a student outside of the classroom setting and shall not be solely or exclusively available from the District.

Additional fees may be required for printing documents in the Open Access Labs. These Labs may include, The Learning Center, English Writing Lab, Computer Science Lab, Business Department \& Office Administration Labs, and 20-20 Lab. Please pay all fees at the Student Store.

## Grades \& Grading Policies

## Grading Symbols and Definitions

Only the symbols in the grading scale given in this section shall be used to grade all courses offered in fulfillment of the requirements for an associate or baccalaureate degree, a certificate, diploma, or license.

Grades shall be averaged on the basis of the point equivalencies to determine a student's grade-point-average, using the following evaluative symbols:

| SYMBOL | DEFINITION | GRADE POINT |
| :---: | :---: | :---: |
| A | Excellent | 4 |
| B | Good | 3 |
| C | Satisfactory | 2 |
| D | Passing, less than satisfactory | 1 |
| F | Failing | 0 |
| CR | Credit (at least equal to a "C" grade or better - units awarded are not counted in GPA) |  |
| NC | No-Credit (equal to a "D" or "F" grade -units are not counted in GPA) |  |
| NCX | Failed Credit-by-Exam (equal to a "D" or "F" grade. Units are not counted in GPA). |  |
| and NC <br> trict Cred | des may be given only in courses authorized by o-Credit Option and Credit by Examination P | the Policies.) |

The following non-evaluative symbols may be entered on a student's record:

## Symbol Definition

## INC Incomplete

Incomplete academic work for unforeseeable emergency and justifiable reasons at the end of the term may result in an "INC" symbol being entered in the student's record. The condition for removal of the "INC" shall be stated by the instructor in a written record.

This record shall contain the conditions for removal of the "INC" and a default grade to be assigned if missing work is not completed within one year from the end of the course. This record shall be given to the student, with a copy on file in the College Admissions Office until the "INC" is made up or the one-year time limit has passed.

A final grade shall be assigned when the work stipulated has been completed and evaluated, or when the one-year time limit for completing the work has passed.

The "INC" symbol shall not be used in calculating units attempted nor for grade points. THE "INC" MAY BE MADE UP NO LATER THAN ONE YEAR FOLLOWING THE END OF THE TERM IN WHICH IT WAS ASSIGNED. The student may petition for a time extension due to unusual circumstances.

Note: Courses in which the student has received an Incomplete ("INC") may not be repeated unless the "INC" is removed and has been replaced by a grade of "D" or "F". This does not apply to courses which are repeatable for additional credit.

## IP In Progress

The "IP" symbol shall be used only in those courses which extend beyond the normal end of an academic term. "IP" indicates that work is "in progress," but that assignment of a substantive grade must await its completion. The "IP" symbol shall remain on the student's permanent record in order to satisfy enrollment documentation. The appropriate evaluative grade and unit credit shall be assigned and appear on the student's record for the term in which the required work of the course is completed. The "IP" shall not be used in calculating grade-point-averages. If a student enrolled in an "open-entry, open-exit" course is assigned "IP" at the end of an attendance period and does not complete the course during the subsequent attendance period, the appropriate faculty will assign an evaluative symbol (grade) as specified above to be recorded on the student's permanent record for the course.

## RD Report Delayed

The "RD" symbol may be assigned by the registrar only. It is to be 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. "RD" is not used in calculating grade point averages.

## W <br> Withdrawal

Students may withdraw from a class or classes through the last day to drop or $75 \%$ of the time the class is scheduled to meet. To withdraw, complete a Drop Card in the Admissions and Records Office or use the STEP telephone system or the Pierce website.

No notation ("W" or other) shall be made on the record of a student who withdraws before the last day to drop without a "W", or $30 \%$ of the time the class is scheduled.

Withdrawal between the last day to drop without a "W" or $30 \%$ of the time the class is scheduled to meet, and the last day to drop or $75 \%$ of the time the class is scheduled to meet, will result in a grade of "W". A student who remains in class beyond the last day to drop or $75 \%$ of the time the class is scheduled shall be given a grade other than a "W", except in cases of extenuating circumstances.

After the last day to drop or $75 \%$ of the time the class is scheduled, the student may withdraw from class upon petition demonstrating extenuating circumstances and after consultation with the appropriate faculty. Students should obtain a petition in the Admissions Office. Extenuating circumstances are verified cases of accidents, illness, or other circumstances beyond the control of the student. Withdrawal after the last day to drop or $75 \%$ of the time the class is scheduled, which has been authorized in extenuating circumstances shall be recorded as "W".

The "W" shall not be used in calculating units attempted nor for the student's grade-point-average.
"W's" will be used as factors in progress probation and dismissal.

## MW Military Withdrawal

"Military withdrawal" occurs when a student who is a member of an active or reserve United States military service receives orders compelling a withdrawal from courses. Upon petition from the student and verification of such orders, a "MW" may be assigned at any time after $30 \%$ of the time the class is scheduled to meet. No notation ("W" or other) shall be made on the records of a student who withdraws during the first $30 \%$ of the time the class is scheduled. Enrollment fees will be refunded with military withdrawals. Military withdrawals shall not be counted in progress probation and dismissal calculations.

## Credit/No-Credit Option

The College President may designate courses in the College Catalog wherein all students are evaluated on a "credit/no-credit" basis or wherein each student may elect, no later than the end of the first $30 \%$ of the term, whether the basis of evaluation is to be "credit/no-credit" or a letter grade. These courses will be noted in the College Schedule as being eligible for the Credit/No-Credit Option.

1. USAGE FOR SINGLE PERFORMANCE standard. The credit/no-credit grading system shall be used in any course in which there is a single satisfactory standard of performance for which unit credit is assigned. A grade of Credit (CR) shall be assigned for meeting that standard, and a grade of No-Credit (NC) shall be assigned for failure to do so.
2. ACCEPTANCE OF CREDITS. All units earned on a "credit/no-credit" basis in accredited California institutions of higher education or equivalent out-of-state institutions shall be counted in satisfaction of community college curriculum requirements.
3. RECORDING OF GRADE. A student who is approved to be evaluated on the "credit/no-credit" basis shall receive both course credit and unit credit upon satisfactory completion of the course. Satisfactory completion for credit is equivalent to the grade of "C" or better. A student who does not perform satisfactorily will be assigned a "No-Credit" (NC) grade.
4. GRADE POINT CALCULATION. Units earned on a "credit/no-credit" basis shall not be used to calculate grade-point-averages. However, units attempted for which "No-Credit" (NC) is recorded shall be considered in probationary and dismissal procedures.
5. STANDARDS OF EVALUATION. The student who is enrolled in a course on a "credit/no-credit" basis will be held responsible for all assignments and examinations required in the course and must meet the standards of evaluation which are identical for all students.
6. CONVERSION TO LETTER GRADE. A student who has received credit for a course taken on a "credit/no-credit" basis may not convert this credit to a letter grade.
7. COURSE REPETITION. A student who has received a grade of "No-Credit" (NC) may repeat the course by meeting the requirements set forth by the District Course Repetition to Improve Substandard Grades Policy.

## 8. CAMPUS PROCEDURE

- Certain courses, noted in the Schedule of Classes, are evaluated on a Credit/No Credit basis only. Letter grades may not be assigned for these courses.
- In addition to courses mentioned above, a student has the option of selecting one course per semester to be graded on a Credit/No Credit basis. This option is available only for courses listed in the Schedule of Classes under "Courses Offered on a Credit/No Credit Basis."
- Selection of courses to be taken on a Credit/No Credit basis must be made during the time indicated in the schedule. Late requests will not be accepted.
- Once a course has been selected to be graded on a Credit/No Credit basis, a student cannot receive a letter grade for the course. The decision to take a course on this basis is irrevocable.
- The general practice at most four-year colleges is not to accept "credit/no credit" grades for courses required for the major or preparation for the major. A student planning to transfer to UCLA is required to have at least 42 units in regular letter grades.


## Grades and Grade Changes

The instructor of the course shall determine the grade to be awarded to each student in accordance with the preceding Grading Symbols and Definitions Policy. The determination of the student's grade by the instructor is final in the absence of mistake, fraud, bad faith, or incompetency. The removal or change of an incorrect grade from a student's record shall be done only upon authorization by the instructor of the course.

In the case of fraud, bad faith, or incompetency, the final determination concerning removal or change of grade will be made by the College President.

Grades are not mailed to students. It is important to check your grades at the end of every semester. Grades are available to students on the STEP telephone system, on-line at www.piercecollege.com and at the Admissions and Records Office.

## Campus Procedure

Students should file a petition for grade change in the graduation office to have an instructor reevaluation of a course grade, provided the grade in question was originally issued within the last year. Effective September 2002, grade changes will not be considered for grades issued more than 1 year ago.

## Transcripts

Upon written request of the student, a copy of the student's academic record shall be forwarded to the student or his or her designated addressee promptly by U.S. mail or other responsible forwarding agency.
A student or former student shall be entitled to two free copies of the transcript of his or her record or two free verifications of student records. Additional copies shall be made available to the student, or to an addressee designated by the student, at a cost of $\$ 3$. Students may request special processing to expedite their request for an additional fee of $\$ 7$ per transcript or verification. This option is subject to the College's ability to provide this service. Requests for transcripts or verifications may be obtained in the Office of Admissions. Transcripts from another institution are not available for copying.

The student's transcript and/or verification of enrollment may be withheld if 1) any library books or other library materials are charged to the student and are unreturned, 2) there are any unpaid fees or charges due to the College, or 3) any other unreturned college property. The transcript may be withheld until these obligations of the student to the College are discharged.

## Academic Honors

This policy is adopted for use in the Los Angeles Community College District only. Other institutions may differ and students planning to transfer to another college should contact that institution regarding its policy.

## Awards

Graduating students of outstanding personality, scholarship, and leadership are recognized through the yearly presentation of awards within the several departments of the College. Recipients of these awards are determined through department procedures.

## President's Honor List

Students who have appeared on the Full-time or Part-time Dean's Honor List for three or more consecutive semesters will be placed on the President's Honor List. A notation of this award will appear on the student's transcript.

## Dean's Honor List

Each semester a list is published containing the names of students who have completed 12 or more units of graded classes (credit/nocredit and incompletes are not included) during the preceding semester with a grade-point average of 3.5 or better. Part-time students may also receive recognition through the Part-time Dean's List, which honors students who have completed a minimum of 12 graded units at Pierce and 6 to 11 units of graded course work with a GPA of 3.5 or better in the current semester. For more details about the Part-time Dean's List, contact the Admissions and Records Office. A notation of this award will appear on the student's transcript.

## President's Award

A perpetual trophy and scholarship have been donated by the Associated Student Organization to the College President so that one or two outstanding graduating students can be recognized. The student must have maintained a 3.0 GPA for all college work, successfully participated in co-curricular activities, demonstrated leadership, served both the College and the community, and exhibited desirable personal qualifications.

# Academic Standards \& Credit Policies 

## Attendance

Only students who have been admitted to the College and are in approved active status may attend classes.

Students are expected to be in class on time and to remain for the entire class period. Medical appointments, work, job interviews, childcare responsibilities, etc. should be arranged so as not to occur during class time. Please do not make requests for exceptions.
Any student who has unexcused absences equaling one week's worth of class time prior to census date may be excluded. Students may drop the class in the Admissions Office, on-line, or by phone on or before the last day to drop. Students should never rely on the instructor to exclude them. Do not call the college offices to report absences; call the course instructor.

By the last day to add the class, students are responsible to inform the instructor of any anticipated absences due to observance of major religious holidays so that alternative arrangements may be made. Failure to do so may result in an inability to make other arrangements or a lower grade.

Students who are registered in a class and miss the first meeting may lose their right to a place in the class, but the instructor may consider special circumstances. Instructors will generally only exclude students through the census date for non-attendance. It is the student's responsibility to drop classes in time to avoid fees and/or grades of "W".
See section "Adding and Dropping" under Registration Policies.

## Campus Procedure

Students who because of mitigating circumstances are unable to attend the first class meeting should leave a voice mail message for the faculty member.

## Withdrawal

Students intending to withdraw should avail themselves of the opportunity to first discuss the contemplated withdrawal with a counselor. Whether withdrawing from one class or all classes in which the student is enrolled, it is essential that standard withdrawal procedures be observed by filling out the proper forms in the Admissions and Records Office.

## Lecture and Laboratory Credit

In computing the number of units granted for any course, Pierce College follows the general practice of granting one unit of credit for each lecture hour per week on the semester basis.

The College requires two or more hours of attendance per week for each unit of credit for non-lecture periods (laboratory, field work, physical education) which require a minimum of outside preparation.

## Final Examinations

Final examinations are to be given in all subjects according to the schedule printed in the Schedule of Classes. No student will be excused from taking a final examination.

All faculty shall retain the final exams of every student for a minimum of one year after the end of the semester for which the final exam was given in order to permit students to examine their graded final exams.

## Credit by Examination

Some courses in the college catalog are eligible for credit by examination.

## 1. Methods of obtaining credit by examination

a. Achievement of a score of 3 (credit for English 101 requires a score of 4) or higher on certain Advanced Placement Examinations administered by the College Entrance Examination Board.
b. Achievement of a score of 50 or higher on one of the College Level Examination Program (CLEP) general exams. Pierce College does not grant credit for the subject area exams.
c. Credit by satisfactory completion of an examination administered by the college in lieu of completion of a course listed in the college catalog. This option is available for selected courses only. See Credit-By-Exam list. The charge for college-administered credit by exam is $\$ 20$ per unit. Petition requirements are 1) student currently registered at Pierce; 2) cumulative GPA of at least $2.0 ; 3$ ) has taken less than 15 units credit by exam; 4) has completed at least 12 units within the Los Angeles Community College District; 5) course is offered on a credit by exam basis; 6) prerequisites (if any) for course are complete; 7) has not enrolled in or completed a more advanced course in the same area; 8) cannot be currently enrolled in course or have already earned a grade in the course.
d. Achievement of a score that qualifies for credit on an examination administered by other agencies approved by the college.
2. Maximum credit allowable for college administered credit by examination
The maximum number of credits allowable for credit by examination for the Associate Degree shall be fifteen (15) units. Credit by examination transferred from other institutions is counted toward this maximum.
3. Limitations

Credits acquired by examination are not applicable to meeting such unit load requirements as Selective Service deferment, Veteran's or Social Security benefits.
4. Recording of credit
a. If a student passes the examination, the course shall be posted on his/her cumulative record indicating "Credit"in the "Grade" column. If the student fails the exam, the transcript record will indicate "No Credit".
b. The number of units of credit recorded for any course may not exceed those listed in the college catalog.

## Acceptance Towards Residence

Units for which credit is given pursuant to the provision of this section shall not be counted in determining the 12 units of credit in residence requirement.

## Courses Offered on a Credit-By-Exam Basis

| American Sign Language | all courses |
| :---: | :---: |
| Animal Science | 501, 510 |
| Architecture | 5 |
| Auto Service Technology | 1,2,3, 4, 5, 6, 7, 25 |
| Computer Science | $\begin{aligned} & 501,507,508,530,533,536,539 \text {, } \\ & 540,572,575,587 \end{aligned}$ |
| Electronics | 4A, 4B, 6A, 6B |
| English | 101 |
| Industrial Technology | 130, 145, 146, 230, 330 |
| Journalism | 101,216 |
| *Music | (201, 202, 203) (211, 212, 213, 214) |
|  | $(221,222)(301,302,303)$ |
| Nursing | $\begin{aligned} & 400,402,403,404,405,406,407 \text {, } \\ & 408,414,415,441,442 \end{aligned}$ |
| Photography | 10,20 |
| Physical Science | 1 |
| Physics | 12 |
| Plant Science | 711, 714, 820 |
| Special Education | all courses |
| Theater Arts | 100 |

* Numbers in parentheses indicate that only one course in the series may be taken credit-by-exam

Credit For Advanced Placement

| TEST | AP | EQUIVALENCY UNITS |
| :---: | :---: | :---: |
| American History | History 11, 12 | 6 |
| Art: History | Art 101, 102 | 6 |
| Studio Drawing | Art 201, 202 | 6 |
| Studio General | Elective credit* | 6 |
| Two-Dimensional Design | Art 501 | 3 |
| Biology | Biology 3 | 4 |
| Computer Science | Computer Science 506/575 | 3 |
| Economics-Micro | Economics 1 | 3 |
| Economics-Macro | Economics 2 | 3 |
| English Language \& Comp. | English 101 | $3^{* *}$ |
| English Comp. \& Lit. | English 101 | $3^{* *}$ |
| European History | History 2 | 3 |
| French Language | French 1 | 5 |
| Literature | Elective Credit* | 6 |
| German Language | German 1 | 5 |
| Literature | Elective Credit* | 6 |
| Human Geography | Geog 2 | 3 |
| Latin: Virgil | Elective Credit* | 6 |
| Catullus-Horace | Elective Credit* | 6 |
| Math: Calculus AB | Math 261 | 5 |
| Calculus BC | Math 261, 262 | 10 |
| Statistics | Math 227 | 4 |


| Music: Listen/Lit. | Music 111, 112 | 6 |
| :--- | :--- | :--- |
| Music Theory | Music 101 | 3 |
| Nonaural Subscr | Music 201 | 3 |
| Aural Subscr | Music 211 | 2 |
| Physics B | Physics 6, 7 | 8 |
| C: Mechanics <br> C: Elec. \& Mag. | Physics 101 | 5 |
| Psychology | Psysics 102 | 5 |
| Spanish Language | Spanish 1 | 3 |
| Literature | Elective Credit* | 5 |
| U.S. Government \& Politics | Political Science I | 6 |
| World History | History 86 \& 87 | 3 |

*Satisfies six (6) units elective credit only--Not G.E. requirement
${ }^{* *}$ Minimum score needed for AP credit is 3 except for English, which requires a score of 4 . Some institutions require higher scores for course credit. Students should check with counselors and/or institution to which they plan to transfer.

## Academic Renewal

The following policy applies only to classes taken at Pierce College. Students may submit a petition to the Office of Admissions and Records to have grades of "D" or "F", removed from their grade-point-average under the following conditions:

1. Students must have achieved a grade-point-average of 2.5 in their most recent 15 semester units, or 2.0 in their most recent 30 semester units completed at any accredited college or university, and
2. At least two calendar years must have elapsed from the time the course work to be removed was completed.
If the above conditions are met, academic renewal shall be granted, consisting of:
3. Eliminating from consideration in the cumulative grade-pointaverage up to 18 semester units of course work, and
4. Annotating the student academic record indicating courses not included in the grade-point-average calculation due to Academic Renewal.
5. Granting of Academic Renewal does not mean the course can be repeated beyond the maximum repeatability listed for the course.
Academic renewal actions are irreversible.

## Course Repetition to Improve Substandard Grades

Students may petition for approval to repeat up to a total of 15 units in which substandard grades (less than "C," 2.0) were awarded.

Students may repeat the same course only once for this purpose and courses must be repeated within the LACCD. Students may petition to repeat a course a second time if special circumstances exist.

Upon completion of a course repetition, students may petition to have the most recent grade earned computed in the cumulative grade-point-average, the substandard grade removed from the grade-point-average calculation and the student's academic record so annotated.

No specific course or categories of courses shall be exempt from course repetition.
This policy is adopted for use in the Los Angeles Community College District only. Other institutions may differ and students planning to transfer to another college should contact that institution regarding its policy.

## Campus Procedure

"Request for Review of Student Record" forms are available at the Information Desk in the Administration Building. This form should be filed to request permission to repeat a course before enrolling in the course for a second time.

## Course Repetition: Special Circumstances

Repetition of courses for which substandard work has not been recorded shall be permitted only upon advance petition of the student and with written permission of the College President or designee based on a finding that circumstances exist which justify such repetition. In such repetition under special circumstances, the student's permanent academic record shall be annotated in such a manner that all work remains legible. Grades awarded for repetition under special circumstances shall not be counted in calculating a student's grade-point-average.

## Course Repetition and Activity Repetition

Certain courses in the Catalog may be repeated for additional unit credit. These courses, marked "RPT" in the Course Section of the Catalog, allow the student an expanded educational experience each time the student enrolls in the course. Enrollment in these courses is limited in any similar activity to a maximum of three repeats for a total of four (4) enrollments, regardless of the repeatability of individual courses. The activity limitation also applies to courses which are not repeatable in themselves but for which similar activities exist. For example, there are several similar course titles in Art, Music, Theater, and Physical Education which are considered to be the same activity. A student may enroll four times in courses which are considered to be the same activity, such as twice in Theater 279, Musical Theater (RPT 3), and twice in Theater 280, Musical Theater Workshop (RPT 3). Any combination may be used as long as 4 enrollments in one activity is not exceeded.

This activity enrollment limitation began with the Fall 1983 term. Excess enrollment will result in administrative drop. Consult a counselor for the latest restricted activity enrollment list.

Note: Whenever the student's record is reviewed for the purpose of determining his or her unit credits, all of the student's record is reviewed, not just the course work since the beginning of Fall 1983.

## Transfer Credit Policy

Transfer credit for lower division courses taken at regionally accredited institutions of higher education in the United States is accepted toward Associate Degrees or Certificates. Students must provide official transcripts.
For additional information, contact the Graduation Office.

## Foreign Transcript Credit Policy

Students who have completed college level courses at schools outside the United States may petition for an unlimited number of lower division units of credit toward an Associate Degree or Certificate under the following conditions:

1. Students must submit a detailed evaluation from an approved evaluation service. Students are responsible for the cost of this service.
2. The foreign university or college must have been approved by that country's Ministry of Education at the time the student attended.
3. No courses may be used to satisfy the Associate Degree's Reading and Written Expression or oral communication requirement unless the course was taken in a country where English is the native language.
4. No course may be used to satisfy the Associate Degree's American Institutions requirement.
5. In cases where equivalent course credit is not granted, elective credit may be awarded.

For additional information, contact the Graduation Office.


## Credit for Courses Completed at Non-Accredited Institutions

Students transferring from non-accredited institutions may, after successful completion of 30 units with a "C" or better grade-pointaverage, apply for up to 15 units of credit in courses which parallel the offerings of the College.

The following exceptions may be made to this regulation:

1. Credit for Graduates of Diploma Schools of Nursing.

The following amount of credit is authorized for graduates of Diploma Schools of Nursing who enter the Los Angeles Community Colleges:
2.1. Thirty (30) semester units of credit will be given to graduates of Diploma Schools of Nursing under the following conditions:
2.1.1. The student presents a valid, current California certificate as a licensed registered nurse to the designated administrative officer;
2.1.2. The student has completed at least 12 units of credit at the College to which application is made.
2.2. The work of graduates of Diploma Schools of Nursing outside California will be recognized if the student has a valid, current California license. Credit will be given even though the license was obtained on the basis of reciprocity with another state rather than by examination.
2.3. Candidates for the Associate of Arts or Associate of Science Degree are exempt from Health Education as a general education requirement. No other general education requirements will be waived.
2.4. Additional courses in Nursing may be taken for credit only upon approval of the Nursing Department.
2.5. The transcript is not to reflect the major field nor should the diploma, where given, indicate Nursing as a major.
2. Credit for Military Service Training

Students who are currently serving in or have served in the military service, may, after successful completion of at least one course with the Los Angeles Community Colleges, request an evaluation of credit earned through military service training schools and/or military occupational specialties.
3. Credit for Law Enforcement Academy Training

Credit for basic recruit academy training instructional programs in Administration of Justice or other criminal justice occupations shall be granted as follows:
2.1. Credit will be given for training from institutions which meet the standards of training of the California Peace Officers Standards and Training Commission.
2.2. A single block of credit will be given and identified as academy credit.
2.3. One (1) unit of credit may be granted for each 50 hours of training, not to exceed (18) semester units or their equivalent.
Credits granted by an institution of higher education for basic recruit academy training, under the above provisions, shall not be identified as equivalent to any required course in the major.

## Academic Probation $\&$ Dismissal

## Academic Standards for Probation

The following standards for academic and progress probation shall be applied as required by regulations adopted by the Board of Governors of the California Community Colleges. Probation shall be determined based on student course work dating from Fall, 1981; course work completed prior to Fall of 1981 is excluded from probation calculations.

## Probation

A student shall be placed on probation if any one of the following conditions prevail:
2.1. ACADEMIC PROBATION. The student has attempted a minimum of 12 semester units of work and has a grade-point-average less than a "C" (2.0).
2.2. PROGRESS PROBATION. The student has enrolled in a total of at least 12 semester units and the percentage of all units in which a student has enrolled and for which entries of "W" (Withdrawal), "INC" (Incomplete), and "NC" (No Credit) are recorded reaches or exceeds fifty percent.
2.3. TRANSFER STUDENT. The student has met the conditions of academic or progress probation at another college within the Los Angeles Community College District.

## Units Attempted

"Units Attempted," for purposes of determining probation status only, means all units of credit in the current community college of attendance for which the student is enrolled.

## Removal from Probation

A student shall be removed from probation upon meeting the criteria specified in this section.

Academic Probation - A student on academic probation for a grade point deficiency shall be removed from probation when the student's cumulative grade-point-average is 2.0 or higher.

Progress Probation - A student on progress probation because of an excess of units for which entries of No-Credit (NC), Incomplete (INC), and/or Withdrawal (W) are recorded shall be removed from probation when the cumulative percentage of units in this category drops below fifty percent ( $50 \%$ ).

## Academic Standards for Dismissal

A student shall be subject to dismissal and subsequently be dismissed under the conditions set forth within this section. Dismissal shall be determined based on student course work dating from Fall, 1981; course work completed prior to Fall of 1981 is excluded from dismissal calculations.

## Academic Probation

A student who is on academic probation shall be subject to dismissal if the student has earned a cumulative grade-point-average of less than 2.0 in all units attempted in each of 3 consecutive semesters.

A student who is on academic probation and earns a semester grade-point-average of 2.0 or better shall not be dismissed as long as this minimum semester grade-point-average is maintained.

## Progress Probation

A student who is on progress probation shall be subject to dismissal if the cumulative percentage of units in which the student has been enrolled for which entries of No-Credit (NC), Incomplete (INC), and/or Withdrawal (W) are recorded in at least 3 consecutive semesters reaches or exceeds fifty percent ( $50 \%$ ).

A student who is on progress probation shall not be dismissed after a semester in which the percentage of units in which the student has been enrolled for which entries of "W", "INC" and "NC" are recorded is less than fifty percent ( $50 \%$ ).

## Appeal of Dismissal

A student who is subject to dismissal may appeal to the Dean of Admissions and Records. Dismissal may be postponed and the student continued on probation if the student shows significant improvement in academic achievement but has not been able to achieve to a level that would meet the requirements for removal from probation.

## Dismissal

A student who is subject to dismissal, and who has not been continued on probation through the appeal process, shall be notified by the College President, or designee, of dismissal which will become effective the semester following notification.

Dismissal from any one college in the District shall disqualify a student from admission to any other college in the District.

## Readmission After Dismissal

A student who has been dismissed may request reinstatement after two semesters have elapsed. The student shall submit a written petition requesting readmission to the College in compliance with College procedures. Readmission may be granted, denied, or postponed subject to fulfillment of conditions prescribed by the College.

## Student Records and Directory Information

The Los Angeles Community College District, in compliance with Federal and State law, has established policies and procedures governing student records and the control of personally identifiable information. The Los Angeles Community College District recognizes that student records are a confidential matter between the individual student and the College. At the same time the District has a responsibility to fulfill public information needs (i.e., information about students participating in athletics, announcement of scholarships and awards, etc.). To meet this responsibility the District may release Directory Information unless the student states in writing that he or she does not want it released. The responsibility for carrying out these provisions is charged to the College Records Officer, designated by the chief administrative officer on each campus. The Records Officer may be contacted via the Office of Admissions. Copies of Federal and State laws and District policies and procedures are maintained by the Records Officer and are available for inspection and inquiry.

All student records maintained by the various offices and departments of the College, other than those specifically exempted by law, are open to inspection by the student concerned. The accuracy and appropriateness of the records may be challenged in writing to the Records Officer. A student has the right to receive a copy of his or her record, at a cost not to exceed the cost of reproduction. (Requests for transcripts should be made directly to the Office of Admissions).
No student records, other than Directory Information, will be released without the written consent of the student concerned except as authorized by law. A log of persons and organizations requesting or receiving student record information is maintained by the Records Officer. The log is open to inspection only to the student and the community college official or his or her designee responsible for the maintenance of student records.

Directory Information includes the student's name, city of residence, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. Directory Information about any student currently attending the College may be released or withheld at the discretion of the Records Officer.

In addition, branches of the U.S. military are entitled to receive the following student information: student directory information as defined above, student address, telephone number, date of birth, and major field of study. This information will not be released if you so indicate on your Application for Admission.

The College Foundation is entitled, with your permission, to receive the following student information: student's name, address and telephone number. The College Foundation is not entitled to release your student information to third parties. This information will not be released if you so indicate on your Application for Admission.

Other colleges and universities may also receive mailing information if you agree to release it on your Application for Admission.

No Directory Information will be released regarding any student who has notified the Records Officer in writing that such information shall not be released.

All inquiries regarding student records, Directory Information, and policies for records access, release, and challenge should be directed to the Records Officer via the Office of Admissions.

Students have the right to file a complaint with the United States Department of Education concerning alleged violations of Federal laws governing student records.

# Student Conduct 

## Standards of Student Conduct

A student enrolling in one of the Los Angeles Community Colleges may rightfully expect that the faculty and administrators of the colleges will maintain an environment in which there is freedom to learn. This requires that there be appropriate conditions and opportunities in the classroom and on the campus. As members of the college community, students should be encouraged to develop the capacity for critical judgment, to engage in the sustained and independent search for truth, and to exercise their rights to free inquiry and free speech in a responsible, non-violent manner. In furtherance of students' interest in free inquiry and the search for truth, it is also important that students be able to hear the views of non-students and engage in the free exchange of ideas with non-students.

All persons shall respect and obey civil and criminal law, and shall be subject to legal penalties for violation of laws of the city, county, state and nation. All persons shall respect and obey the rules, regulations, and policies of the Los Angeles Community College District.

Conduct in all of the Los Angeles Community Colleges must conform to District and college rules and regulations. Violations of such rules and regulations, may result in disciplinary action depending on the individual's status as student, faculty, staff or visitor.

Violations of such rules and regulations include but are not limited to the following:

Board Rule 9803.10
Willful Disobedience. Willful disobedience to directions of college officials acting in the performance of their duties.

## Board Rule 9803.11

Violation of College Rules and Regulations. Violation of college rules and regulations including those concerning student organizations, the use of college facilities, or the time, place, and manner of public expression or distribution of materials.
Board Rule 9803.12
Dishonesty. Dishonesty, such as cheating, or knowingly furnishing false information to the colleges.

## Board Rule 9803.13

Unauthorized entry. Unauthorized entry to or use of the college facilities.

Board Rule 9803.14
College Documents. Forgery, alteration, or misuse of college documents, records, or identification.

## Board Rule 9803.15

Disruption of Classes or college activities. Obstruction or disruption of classes, administration, disciplinary procedures, or authorized college activities.

Board Rule 9803.16
Theft of or Damage of Property. Theft of or damage to property belonging to the college, a member of the college community, or a campus visitor.

Board Rule 9803.17
Interference with peace of college. The malicious or willful disturbance of the peace or quiet of any of the Los Angeles Community Colleges by loud or unusual noise, or any threat, challenge to fight, fight, or violation of any rules of conduct as set forth in this Article. Any person whose conduct violates this section shall be considered to have interfered with the peaceful conduct of the activities of the college where such acts are committed.

## Board Rule 9803.18

Assault or battery. Assault or battery, abuse, or any threat of force or violence directed toward any member of the college community or campus visitor engaged in authorized activities.

## Board Rule 9803.19

Alcohol and Drugs. Any possession of controlled substances which would constitute a violation of Health and Safety Code section 11350 or Business and Professions Code section 4230, any use of controlled substances the possession of which are prohibited by the same, or any possession or use of alcoholic beverages while on any property owned or used by the District or colleges of the District or while participating in any District or college-sponsored function or field trip.
"Controlled substances", as used in this section, include but are not limited to the following drugs and narcotics:
a) opiates, opium and opium derivatives
b) mescaline
c) hallucinogenic substances
d) peyote
e) marijuana
f) stimulants and depressants
g) cocaine

## Board Rule 9803.20

Lethal Weapon. Possession, while on a college campus or at a college-sponsored function, of any object that might be used as a lethal weapon is forbidden to all persons except sworn peace officers, police officers and other governmental employees charged with policing responsibilities.

## Board Rule 9803.21

Discriminatory Behavior. Behavior while on a college campus or at a college-sponsored function, inconsistent with the District's non-discrimination policy, which requires that all programs and activities of the Los Angeles Community College District be operated in a manner which is free of discrimination on the basis of race, color, national origin, ancestry, religion, creed, sex, pregnancy, marital status, sexual orientation, age, handicap or veterans status.

## Board Rule 9803.22

Unlawful Assembly. Any assemblage of two or more persons to 1) do an unlawful act, or 2) do a lawful act in a violent, boisterous or tumultuous manner.

## Board Rule 9803.23

Conspiring to Perform Illegal Acts. Any agreement between two or more persons to perform illegal acts.

## Board Rule 9803.24

Threatening Behavior. A direct or implied expression of intent to inflict physical or mental/emotional harm and/or actions, such as stalking, which a reasonable person would perceive as a threat to personal safety or property. Threats may include verbal statements, written statements, telephone threats or physical threats.

## Board Rule 9803.25

Disorderly Conduct. Conduct which may be considered disorderly includes; lewd or indecent attire or behavior that disrupts classes or college activities; breach of the peace of the college; aiding, or inciting another person to breach the peace of college premises or functions.

## Board Rule 9803.26

Theft or Abuse of Computer Resources. Theft or abuse of computer resources including but not limited to:
a. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
b. Unauthorized transfer of a file.
c. Unauthorized use of another individual's identification and password.
d. Use of computing facilities to interfere with the work of a student, faculty member, or college official, or to alter college or district records.
e. Use of unlicensed software.
f. Unauthorized copying of software.
g. Use of computing facilities to access, send or engage in messages which are obscene, threatening, defamatory, present a clear and present danger, violate a lawful regulation and/or substantially disrupt the orderly operation of a college campus.
h. Use of computing facilities to interfere with the regular operation of the college or district computing system.

## Board Rule 9803.27

Performance of an IIlegal Act. Conduct while present on a college campus or at a location operated and/or controlled by the District or at a District-sponsored event, which is prohibited by local, State, or federal law.

## Board Rule 9804

Interference with Classes. Every person who, by physical force, willfully obstructs, or attempts to obstruct, any student or teacher seeking to attend or instruct classes at any of the campuses or facilities owned, controlled or administered by the Board of Trustees of the Los Angeles Community College District, is punishable by a fine not exceeding five hundred dollars ( $\$ 500$ ) or imprisonment in a county jail not exceeding one year, or by both such fine and imprisonment. As used in this section, "physical force" includes, but is not limited to, use of one's person, individually or in concert with others, to impede access to or movement within or otherwise to obstruct the students or teachers of the classes to which the premises are devoted.

## Board Rule 9805

Interference with Performance of Duties by Employees. Every person who attempts to cause, or causes, any officer or employee of any of the Los Angeles Community Colleges or any public officer or employee to do or refrain from doing, any act in the performance of his/her duties, by means of a threat to inflict any injury upon any person or property, is guilty of a public offense.

## Board Rule 9805.10

Assault or Abuse of Instructor. Every parent, guardian, or other person who assaults or abuses any instructor employed by the District in the presence or hearing of a community college student or in the presence of other community college personnel or students and at a place which is on District premises or public sidewalks, streets, or other public ways adjacent to school premises, or at some other place where the instructor is required to be in connection with assigned college activities is guilty of a misdemeanor.

## Board Rule 9806

Unsafe Conduct. Conduct which poses a threat of harm to the individual and/or to others. This includes, but is not limited to, the following types of conduct:
a. Unsafe conduct in connection with a health services program (e.g., nursing, dental hygiene, etc.);
b. Failure to follow safety directions of District and/or College staff;
c. Willful disregard of safety rules as adopted by the District and/or College; and/or
d. Negligent behavior which creates an unsafe environment.

## Smoking Policy

Smoking is not permitted in any classroom or other enclosed facility. Smoking is permitted in designated areas only.

## Drug-Free Campus

Los Angeles Pierce College adheres to, supports, and is in full compliance with requirements that maintain our college as a drugfree institution of higher education.

## Standards of Conduct

On September 5, 1990, the Board of Trustees adopted the following standards of conduct:
Students and employees are prohibited from unlawfully possessing, using or distributing illicit drugs and alcohol on district premises, in district vehicles, or as part of any activity of the Los Angeles Community College District.

## Legal Sanctions

Federal laws regarding alcohol and illicit drugs allow for fines and/or imprisonment. Other legal problems include the loss of driver's license and limitations of career choices.

## Health Risks

Health risks associated with the abuse of controlled substances include malnutrition, damage to various organs, hangovers, blackouts, general fatigue, impaired learning, dependency, disability, and death. Both drugs and alcohol may be damaging to the development of an unborn fetus.

## Other Risks

Personal problems include diminished self-esteem, depression, alienation from reality, and thoughts of suicide. Social problems include loss of friends, academic standing, and co- and extracurricular opportunities, alienation from and abuse of family members, and chronic conflict with authority. Economic problems include loss of job, financial aid eligibility, homes, savings, and other assets.

## Counseling, Treatment and Rehabilitation

Students should contact the Student Health Center or the campus Counseling Office for assistance and referrals; employees should contact the Los Angeles Community College District Employee Assistance Program.

## Disciplinary Action

Violation of Board Rule 9803.19 shall result in student discipline, imposed in accordance with the Student Discipline Procedures as stated in Board Rule 91101. Furthermore, institutional policies and practices may impose disciplinary sanctions on students and employees consistent with local, state, and federal law, up to and including expulsion, termination of employment, and referral for prosecution for violations of the standard of conduct.
The Los Angeles Community College District is committed to drug- and alcohol-free campuses, and we ask you to share in this commitment and dedication.

## Student Discipline Procedures

Community college districts are required by law to adopt standards of student conduct along with applicable penalties for violation (Education Code Sections 66017, 66300, 76030 and 76031). The Los Angeles Community College District has complied with this requirement by adopting Board Rule 9803, Standards of Student Conduct and 91101, Student Discipline Procedures. The purpose of Board Rule 91101 is to provide uniform procedures to assure due process when a student is charged with a violation of the Standards of Student Conduct. All proceedings held in accordance with these procedures shall relate specifically to an alleged violation of the established Standards of Student Conduct.

These provisions do not apply to grievance procedures, student organization councils and courts, or residence determination and other academic and legal requirements for admission and retention. Disciplinary measures may be taken by the College independently of any charges filed through civil or criminal authorities, or both.

Copies of the Student Discipline Procedures are available in the Student Services Office.

## Student Grievance Procedures

The Student Grievance Procedure is to provide a prompt and equitable means for resolving student grievances. The grievance procedure may be initiated by a student or group of students who reasonably believe that he/she/they have been subject to unjust action or denied rights that adversely affect his/her/their status, rights, or privileges as a student. The grievance procedure is detailed in District Administrative Regulation E-55 which is available in the Student Services Office and the Office of College Compliance to any student or applicant to the college.

This grievance procedure does not apply to the challenge process for prerequisites, corequisites, advisories and limitations on enrollment; alleged violations of sexual harassment; actions dealing with student discipline; alleged discrimination on the basis of ethnic group identification, religion, age, sex, color, sexual orientation, physical or mental disability; or an appeal for residency decision; or to eligibility, disqualification or reinstatement of financial aid.
In addition, section 76224 of the California Education Code provides:
"When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetency, shall be final."

The following steps should be taken to begin the grievance procedure:

## Step I Informal Resolution

All parties involved in a potential grievance should be encouraged to seek an informal remedy. The student shall make a reasonable effort to resolve the matter on an informal basis by:

1. meeting with the person with whom the student has a grievance.
2. meeting with that person's immediate supervisor.
3. meeting with the College administrator of the area.
4. meeting with the College Compliance Officer to explore student rights and responsibilities, receive assistance with an informal resolution, and submit a written "Statement of Grievance".

## Step II Formal Resolution

Students unable to resolve their grievance through the informal process may file a "Formal Grievance Hearing Request Form" with the College Compliance Officer. The OCC will provide students with information about the formal grievance hearing process and their rights and responsibilities in this process.

Students pursuing a formal grievance have the right to be represented by a Student Advocate who will assist students in the formal grievance process.
Additional information and assistance with the Student Grievance Procedure may be obtained from the Student Services Office or the OCC.

## Student Academic Integrity Policy Statement

The faculty and administration of Los Angeles Pierce College are committed to the belief that honesty and integrity are integral components of the academic process. The College expects students to be honest and ethical at all times in their pursuit of academic goals. Students who violate the code of academic conduct by which the College maintains its academic integrity will be dealt with in a manner reflecting the seriousness of these violations.
I. Violations of academic honesty and integrity occur when a student participates in any act in which he/she uses deception or fraud while performing an academic activity. Violations include, but are not limited to, the following:

- Using study aids such as calculators, tape recorders or notes, when not authorized by the instructor.
- Cheating on examinations, assignments or experiments (allowing another student to copy one's answers or copying the answers of other students; exchanging information by any means, including verbal exchanges, sign language, hand signals, secret codes, passed notes, creation of a distraction for the purpose of cheating; changing answers on a previously scored test, assignment or experiment; inventing information and/or data.)
- Allowing another student to assume one's identity in order to fulfill an assignment or take a test.
- Submitting for a grade the words, ideas, and/or written work (including laboratory notes and drawings) of another person without giving due credit to that person. This includes purchased papers or papers written by other students.
- Falsifying or attempting to falsify attendance records and/or grade rosters.
- Conspiring with other students to commit any of the above behaviors.
II. Consequences for any offense against academic honesty and integrity may include:
- An "F" or a " 0 " on the examination or assignment.
- Suspension from the class and other sanctions and/or penalties authorized by the Board of Trustees for violations of the District Code of Conduct.
- A record of the student's violation placed in the student's disciplinary file.
III. Student's Right to Appeal

Students have the right to appeal disciplinary actions through the Board of Trustees Discipline procedures. A final grade may be contested through the student grievance procedures.
IV. Reporting a Violation

When an alleged incident of academic dishonesty occurs, it is recommended that a faculty member take the following steps to report the incident:
a) Inform the student and the department chair of the nature of the alleged violation and the impending course of action.
b) Complete the Academic Dishonesty Report Form and submit it, along with any related evidence, to the V.P. of Student Services. The student should also receive a copy of the form from the instructor within ten (10) working days of the incident.
c) The V.P. of Student Services will forward information about the incident to the Department Chair and the appropriate Dean of Academic Affairs.
d) The V.P. of Student Services or designee will investigate the allegations and recommend any appropriate disciplinary actions.
V. Faculty Responsibilities

In order to maintain an environment free of academic dishonesty, the following recommendations are made to the faculty regarding their responsibility to uphold academic integrity:
Make every attempt to conduct their classroom in a manner which encourages honorable behavior and learning, to ensure student success and discourage academic dishonesty.
Inform students of the course requirements, grading procedures and expectations of responsible academic conduct.
Inform students of the College policy on Academic Integrity and the potential consequences for violations of this policy.
Inform students of their right to due process should they wish to contest the cheating allegation.

# Campus Parking \& Safety Regulations 

## Campus Parking, Traffic And Safety Regulations

## Enforcement of Traffic and Parking Regulations

The maximum speed limit is eight (8) miles per hour on all parking facilities and 25 miles per hour on campus roads.

All persons driving a vehicle on the campus are required to comply with the traffic laws of the State of California and the rules and regulations pursuant to Section 21113A of the California Vehicle Code. Violations of any of the regulations set forth below may result in a citation being issued.

Section 21113A. CVC grants the President of Pierce College authority to regulate and impose special conditions regarding traffic and parking regulations which include the authority to have vehicles which block traffic flow and pose a safety hazard, or are abandoned with no license, towed away at the owner's expense.
Vehicles parking in areas designated as tow-away zones will be towed away, no exceptions. Please check fences and curbs for tow-away signs. ALL POSTED CAMPUS TRAFFIC AND PARKING REGULATIONS WILL BE ENFORCED. Parking on campus is a privilege and permission to park may be revoked at any time.

Pierce College assumes no responsibility for damage to any motor vehicle, theft of its contents, or injury to persons operating such vehicles on or off the campus.

## THERE IS NO FREE PARKING AREA ON THE CAMPUS. ALL PARKING AREAS REQUIRE A PERMIT. PERMITS MUST BE DISPLAYED ON THE REAR VIEW MIRROR.

METERED PARKING STALLS ARE USED PRIMARILY FOR VISITORS. STUDENTS WITH A PERMIT MAY USE THE METER, BUT THEY MUST PAY.

PERMIT VENDING MACHINES FOR GUEST PARKING ARE AVAILABLE IN LOT 7. THESE ONE-DAY ONLY PARKING PERMITS CAN USED IN ANY PARKING LOT.

A VALID PERMIT MUST BE DISPLAYED AT ALL TIMES.
A STUDENT'S PIERCE COLLEGE PARKING DECAL IS VALID AT EACH LOS ANGELES COMMUNITY COLLEGE DISTRICT CAMPUS AT WHCH THE STUDENT IS CURRENTLY ENROLLED IN CLASSES.

See STUDENT FEES section in this schedule of classes or the college catalog for more details.

A one week grace period to purchase parking permits is given for the winter/summer semesters.
A two week grace period to purchase parking permits is given for the fall/spring semesters.

## General Regulations on Driving and Parking

1. The person in whose name the vehicle is registered will be held responsible for any violations involving the vehicle.
2. Yield the right of way to pedestrians at all times.
3. Driving or parking a vehicle on pedestrian paths, sidewalks, or safety zones is prohibited. All violators will be cited.
4. Curbs painted red indicate NO PARKING zones. Curbs painted yellow indicate loading and unloading zones for passengers and business deliveries. Curbs painted green indicate "special parking" or limited parking time. Curbs painted blue indicate handicapped parking by Special Permit obtained from Special Services. Student parking is not permitted in Staff/Faculty lots without a Special Permit. Parking in red and yellow zones, loading docks, entrances to buildings and driveways constitutes illegal parking.
5. No vehicle shall back into a stall. Vehicles must park clearly within marked stalls. Failure to do so will constitute illegal parking.
6. The responsibility of finding a legal parking space rests with the motor vehicle operator. LACK OF SPACE IS NOT CONSIDERED A VALID EXCUSE FOR VIOLATION OF THESE REGULATIONS
7. Any area on campus that has been closed off by barricades or other traffic control devices shall not be entered by any vehicle.
8. Motorcycles, motorscooters and motorized bicycles may not be parked in bicycle racks nor may they be driven on sidewalks or pedestrian paths. Motorcycles, motor scooters and motorized bicycles must park in motorcycle areas of lot No. 1 or 7. MOTORCYCLES ARE NOT PERMITTED ON INNER CAMPUS ROADWAYS.
9. Always lock your car and set brakes when parking
10. If you feel you have received a parking citation in error, see College Police between the hours of 8:00 a.m. - 9:00 p.m., Monday - Thursday.
Students are advised to be alert for large farm machinery moving on the campus, particularly early in the morning and evenings. Use extreme caution when driving around farm machinery, which travels slowly and makes very wide turns, and needs plenty of room to maneuver. If you park on the farm, please park completely off the road. Never park in front of gates. When encountering farm machinery, please yield to it.

## Bicycle Safety Rules

1. Bicycle racks are provided at various locations on campus. Lock your bicycle to the rack with a sturdy chain to help prevent theft.
2. No bicycle riding is permitted on sidewalks adjacent to classrooms or under arcades.
3. No bicycles are permitted in classrooms, library, gyms, or other school facilities.
4. If bicycles are chained to poles outside classrooms they must be parked so as not to obstruct sidewalks.
5. Ride with the traffic, obeying all traffic rules as you would on a public highway as per Section 21200 of the California Vehicle Code.
6. It is your responsibility to watch out for pedestrians. Exercise caution on the inner campus and walk your bike during heavily congested periods.
7. Riding on grass is prohibited.

Rollerskates, in-line skates and skateboards are not permitted on campus.

Dogs are not permitted on campus. (except for seeing eye dogs)
Access to campus is limited on weekends and at night. The campus is closed from 11:00 p.m. to 6:00 a.m. Only the Winnetka entrance will be open on weekends and holidays.

## Non-District Sponsored Transportation

Some classes may be conducted off campus. Unless you are specifically advised otherwise, you are responsible for arranging for your own transportation to and from the class site. Although the District may assist in coordinating the transportation and/or recommend travel times, route or caravaning, be advised that the District assumes no liability or responsibility for the transportation and any person driving a personal vehicle is not an agent of the District.

## Student Services \& Academic Resources

## Student Services

The primary purpose of the Office of Student Services is to protect the right of every student to receive a higher education and to ensure that this right will not be infringed upon arbitrarily, capriciously, or in a discriminatory manner, or without due process of law. The Vice President of Student Services acts as an advocate for the students. Another responsibility of the office is to enforce the Code of Student Conduct for the safety and protection of the college community and the preservation of academic integrity.

Pierce College offers a broad array of support services for students. These student services are designed to assist students in accomplishing their educational objectives and to provide opportunities for involvement in a number of co-curricular activities. Overall supervision is the responsibility of the Vice President of Student Services.

## Financial Aid

## What is Financial Aid?

Financial Aid is made available by federal and state programs in the form of grants, scholarships, loans and employment. Private sources also provide educational funds in the form of scholarships. This assistance makes it possible for students to continue their education beyond high school, even if they and/or their family cannot meet the full cost of the post-secondary school they choose to attend. The basis for such assistance is the belief that parents have the primary responsibility to assist their dependents in meeting educational costs. Financial aid is available only to fill the gap between a family's contribution and the student's yearly academic expenses.

## Who is eligible for Financial Aid?

To be considered for financial aid, students must generally meet the following minimum requirements.

- Be a U.S. citizen or an eligible non-citizen. An eligible noncitizen is a U.S. permanent resident who has documentation from the Immigration and Naturalization Service verifying that his/her stay in U.S. is for other than a temporary purpose.
- Show financial need as determined by Federal regulations.
- Be making satisfactory progress in a course of study leading to one of either an AA or AS degree, certificate, or transfer to a baccalaureate degree program.
- Not be in default on any loans such as Federal Perkins Loans, Federal Stafford Loans (subsidized and unsubsidized), Federal Direct Loan (subsidized and unsubsidized, or FPLUS Loans (Parental Loans for undergraduate Students) at any school attended.
- Not owe a refund on a Federal Pell Grant, Federal Supplemental Educational Grant (FSEOG) or State Student Incentive Grant (SSIG).
- Be registered with the Selective Service, if required to do so.
- Be enrolled as a regular student in an eligible program.
- Have a valid social Security Number.
- Demonstrate an ability to benefit as defined below.


## Ability to Benefit

Students who meet one of the qualifications listed below have demonstrated the ability to benefit from a college education in accordance with applicable Federal Regulation.

- Received a high school diploma; or
- Passed a California high school proficiency examination; or
- Received a certificate of General Education Development (GED); or
- Successfully completed a two-year program (minimum 48 units) that is acceptable for full credit towards a bachelor's degree. This student may be admitted on the basis that he or she has the recognized equivalent of a high school diploma; or
- Passed an independently administered "Ability to Benefit Test" that is approved by the Secretary of the Department of Education. Tests are administered at the Assessment Center. An appointment to take the test can be made by calling (818) 719-6499.


## When to apply

- NOVEMBER

Submit the College Admission Application for the academic year attending.
Obtain a Department of Education Personal Identification Number (PIN) now.
Your PIN will serve as an e-signature and will expedite the financial aid and loan processes. Go to www.pin.ed.gov to apply for a PIN.
For dependent students, your parents also need to apply for a PIN.

- JANUARY/FEBRUARY

January and February are the months to submit your Free Application for Federal Student Aid (FAFSA) and Cal Grant GPA Verification!
Go to www.fafsa.ed.gov to apply for the FAFSA.

- MARCH

Deadline for PRIORITY financial aid consideration is March 2nd - be sure your FAFSA is filed.
Deadline for GPA Verification form is March 2nd - be sure your GPA verification form is filed with the California Student Aid Commission.
Do NOT wait until you are admitted to LAPC before submitting your FAFSA and GPA Verification form.

## - APRIL/MAY

To receive your financial aid disbursement by the first week of the Fall semester, all supporting documents must be submitted by May 1 of your first year.
The priority date is established to encourage early application for financial aid. Students who have missed the priority date may still apply, but funds may be limited.

- MAY/JUNE

Award notifications are issued for priority applicants.

- AUGUST/SEPTEMBER

Financial Aid disbursement for priority applicants.

- OTHER DEADLINES

September 2 - Cal Grant Community College competitive awards deadline.
Mid November - Deadline for Fall only loans.
Mid April - Deadline for academic year loans.
To receive Title IV Financial Aid as noted above, the Pierce College Financial Aid Office must have on file a valid Institutional Student Information Report (ISIR) by the last day of enrollment for a term or June 30, 2008, whichever is earlier.

## How to Apply

To apply for federal and state financial aid programs, complete and submit the Free Application for Federal Student Aid (FAFSA). The FAFSA is an all inclusive form that allows students to apply for all programs.

Apply electronically on the World Wide Web. Web-site address is www.fafsa.ed.gov. (Note: Be sure to print and mail the signature page when you transmit your application, if you are not submitting the form with a Personal Identification Number (PIN).)
If you do not have a Personal Identification Number (PIN) you may $\log$ on to the FAFSA website: www.fafsa.ed.gov for information on requesting a PIN number.

The Financial Aid Office maintains the right to request additional information which may be required to process your application. These may include but are not limited to:

- Tax Return
- Verification of Untaxed Income
- Verification Worksheet
- Selective Service Certification
- Social Security Verification
- Permanent residency documents, if an eligible non-citizen


## Verification Policy

Federal verification requirements apply to the following programs:

1. Federal Pell Grants
2. Federal Supplemental Educational Opportunity Program (FSEOG)
3. Federal Work Study Program (FWS)
4. Federal Perkins Loan Program
5. Federal Direct Loan Program
6. Federal Family Education Loan Program.

If your application has been selected for verification by the federal processor, you will be required to provide additional documentation.

For the Federal Direct Loan Program, and the Federal Family Education Loan Program, verification must be completed 20 working days prior to the last day of the enrollment period to allow for loan processing time.

Students whose applications are selected for verification may be paid on any corrected valid SAR/ISIR that is received within 120 days after the student's last day of enrollment.

If an applicant does not complete verification by the established deadline, all federal financial aid is forfeited for the award year.

## English As A Second Language

Students taking only ESL classes must submit both an Educational Plan and an ESL Certification Card to the Financial Aid Office within the first semester. Both forms must be signed by a Counselor. ESL Certification Cards are available in the Financial Aid Office and in the Counseling Center.

## Audited Classes

Students cannot receive financial aid for enrollment in audited classes.

## Enrollment at Other LACCD Colleges

Consortium Agreements are in effect for all colleges within the Los Angeles Community College District. If you are attending more than one college within the District in the same academic period, payment will be based on all units taken. You must maintain at least a one (1) unit level of enrollment at the Home/Primary school (the school processing your financial aid) for the entire award period. If you are applying for a loan, you must be enrolled in a minimum of six (6) units at the school where you are receiving financial aid. For further information, please contact the Financial Aid Office.

Please note: Los Angeles Pierce College does not participate in Consortium Agreements outside of the Los Angeles Community College District.

## Tax Credit

The Tax Relief Act of 1997 created two programs that might be useful to students or their parents.

Hope Scholarships tax credit: provides up to $\$ 1,500$ in tax credit for tuition and required fees for the first two years of college for students enrolled at least half-time. The credit for most in-state students would, of course be much less because of our low cost. Students whose fees are waived through the Board of Governors fee waiver program or whose fees are covered by a scholarship or grant would not be eligible to take the tax credit.

Lifetime Learning tax credit: families can receive a 20\% tax credit for the first $\$ 10,000$ of tuition and required fees paid each year. The maximum credit is determined on a per-taxpayer (family) basis, regardless of the number of post-secondary students in the family. As above, students whose fees are covered by a fee waiver, scholarship, or grant would not be able to add their costs to their families for tax credit calculation.

You should consult a tax professional for further details on the tax credits, including phase out of eligibility depending on the family's adjusted gross income, or consult the following web-site: http://www.ed.gov/inits/HOPE/97918tax.html

## Types of Financial Aid Available

## Federal Financial Aid (Grants)

## Federal Pell Grant Program

The Federal Pell Grant Program is a federally funded program.
To be eligible, an applicant must be an undergraduate student and demonstrate financial need. Grants range from $\$ 400$ to $\$ 4,050$ per academic year for Los Angeles Community College District students. The amount of the award, as determined by the Federal Pell Grant Program, is in most cases based on 2006 income and current asset information provided in the application.

In certain cases, a family's financial situation can change because of:

- Death in the family
- Separation or divorce
- Loss of employment
- Loss of non-taxable income or benefits

In such cases, the student should contact the Financial Aid Office.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG program is a federal program designed to supplement other sources of financial aid for students with exceptional need. FSEOG awards range upward from $\$ 100$ to $\$ 400$ per year, depending on need and packaging policy.

## Bureau of Indian Affairs Grant (BIA)

BIA Grants provide money to help defray the costs of education for students with American Indian Heritage. Students may apply if they:

1. Are at least one-quarter American Indian, Eskimo, or Aleut, as certified by the BIA and/or by tribal group services of the BIA;
2. Are enrolled members of a federally recognized tribe;
3. Have financial aid eligibility and scholastic ability;
4. Are working toward an undergraduate or graduate degree;
5. Have completed all of the application requirements.

The amounts of the grants vary according to the individual agency of the BIA. The BIA Grant is advantageous because, unlike most other grants, it may be used to replace the loan or work portion of the financial aid package.

For Higher Education Grant applications, write to: Office of Indian Education, 2800 Cottage Way, Sacramento, California 95825. (916) 979-2600

## Board of Governors Fee Waiver Program (BOGFW)

The Board of Governor's Fee Waiver Program is offered by the California Community Colleges. Under this program enrollment fees are waived for students who qualify. Applicants do not have to be enrolled in a specific number of units or courses to receive the waiver and no repayment of funds is required.
You are eligible to apply for a waiver if:

- You are a California resident; and
- You are enrolled in at least 1 unit

You qualify if any one of the following statements apply to you:
A. At the time of enrollment you are a recipient of benefits Under the TANF/CalWORKS Program (formerly AFDC), SSI (Supplemental Security Income), you have certification from the California Department of General Assistance (also known as General Relief), or you have certification from the California Department of Veterans Affairs, or the National Guard Adjutant General that you are eligible for a dependent's fee waiver.
B. You meet the following income standards:

| Number in Household <br> (including yourself) | Total family Income <br> (adjusted gross income <br> and/or untaxed income) |
| :---: | :---: |
| 1 | $\$ 14,700$ or less |
| 2 | $\$ 19,800$ or less |
| 3 | $\$ 24,900$ or less |
| 4 | $\$ 30,000$ or less |

Add \$5,100 for each additional dependents or have a zero (0) or lower Expected Family Contribution (EFC) on student's financial aid application.
C. You are qualified for financial aid. To qualify under this criteria, you will need to complete the FAFSA. If you qualify after you pay your enrollment fees, you should complete a "Request for Refund" form available in the college Business Office.

## State Grants

The State of California, through the California Student Aid Commission, sponsors several grant programs for undergraduate students. These include the Cal Grant Program, the Extended Opportunity Program and Services, and the Law Enforcement Personnel Dependents Scholarships Program.

To qualify for any of the state-funded grants, a student must be a California resident and be attending (or planning to attend) an eligible school or college in California.

## Cal Grants

There are three types of Cal Grants as described below: Cal Grant A, Cal Grant B, and Cal Grant C. A student can only receive one type of Cal Grant in an award year.

The deadline to apply for any Cal Grant is September 2. However, students are encouraged to apply by March 2 to be considered for the Cal Grant initial awarding process. Students applying for a Cal Grant must also file a GPA Verification Form with the California Student Aid Commission by September 2. College Financial Aid Offices have complete information and forms.

## - Cal Grant A

Cal Grant A assists low and middle income students with tuition costs. Although this grant is only for use at four year colleges, students should apply while attending Los Angeles Community Colleges. The California Student Aid Commission (CSAC) will hold the grants for up to two years, for qualifying students who transfer to a four year college.

To be eligible for a new (first time) CAL GRANT A, a student may not have completed more than six semesters (or nine quarters) of college study and must be enrolled in at least six units of course work. Financial need and grade point average are also used to establish a student's eligibility.

- Cal Grant B

This program provides a living allowance for entering college freshmen who come from very low income families.

At a community college, grants can range from $\$ 300$ to $\$ 1,551$ per academic year. Students must be enrolled in at least 6 units to be eligible.

- Cal Grant C

This grant is intended for students who desire to train for specific occupations, vocations, or technical careers, but who do not have the financial resources to enter training programs because they are from low income families.

Grants are limited to $\$ 576$ per year at community colleges for programs ranging in length from four months to two years. Students must be enrolled in at least 6 units and demonstrate occupational achievement or aptitude in the chosen field.

An Academic Competitiveness Grant has a first year award of $\$ 750$ and up to $\$ 1,300$ for the second year. Must meet a rigorous academic program as defined by California.

## Law Enforcement Personnel Dependents Scholarship Programs

This grant program provides educational benefits to the dependents of California police and other law enforcement officers (Chief of Police, Police Officers, Sheriffs, Marshal, Deputy Marshal, etc.) who have been killed or totally disabled in the line of duty.

For more information and application materials, write directly to: California Student Aid Commission, 1515 S Street, Suite 500, P.O. Box 510624, Sacramento, California 94245 - Attention LEPD Program.

## Loans (Aid That you have to pay back)

CAUTION ABOUT STUDENT LOANS - It takes time for a loan application to be processed by the school, lender, and/or the government. It may be several weeks after an application has been accepted in the Financial Aid Office before the student receives the money. Student loan checks are mailed to the student after enrollment has been verified.

## Federal Student Loan Programs

- Federal Family Educational Loan Program
- Federal Direct Student Loan Program

Qualified financial aid applicants may be eligible for up to $\$ 8,500$ per academic year from the Federal Student Loan Programs. The student's annual borrowing limit may vary based upon the following:

- The amount of unmet need after other federal assistance is considered; and
- The applicant's year in school (1st or 2 nd ); and
- The applicant's previous delinquent or defaulted loan history

For additional details about interest rates, fees, repayment terms, etc., on these loans, contact the Financial Aid Offices at (818) 719-6428.

## Federal Perkins Loan Program

The Federal Perkins Loan program provides low interest loans to help students with exceptional need meet their educational expenses.

Students may borrow up to $\$ 20,000$ for the time it takes to complete their first Baccalaureate degree. Loan amounts awarded at the Los Angeles Community College District are determined by individual colleges and the availability of funds.
Repayment begins nine (9) months after the borrower graduates, withdraws, or ceases to be enrolled in at least half-time studies, and can be extended to ten (10) years and nine (9) months after such date. During the repayment period, five percent (5\%) interest is charged on the unpaid balance of the loan principal.

## Part-Time Employment

## Federal Work Study (FWS)

The FWS program enables students to earn part of their financial aid award through part-time employment either on or off campus. To be eligible, a student must meet the eligibility requirements for federal financial aid and must maintain a good academic standing while employed under the program. Hourly wages may vary with the type of work.

## Summer Financial Aid

Pell Grants and other financial aid are available for summer school enrollment for eligible students. Please contact the College Financial Aid Office where you are processing your financial aid application for information on specific details.

## Scholarships

Throughout the year, the college receives announcements on scholarship opportunities. The focus of each scholarship is different; some require good grades, some require financial need, and some are awarded to students who are majoring in certain areas. The campus Financial Aid Office has a listing of current scholarship offerings. Interested students are urged to go to the Financial Aid Office for information and assistance. The Pierce College Financial Aid Office is located in the College Services Building.

## Other sources of financial aid

There are many kinds of aid available from other sources, including, but not limited to:

- Veterans Benefits
- Vocational Rehabilitation Assistance
- Temporary Assistance for Needy Families (TANF)

If you are eligible for any of these benefits, you are encouraged to apply because financial aid funds are limited. Contact the appropriate off-campus agency for more details.

## How Financial Aid is Packaged

Once the student's financial aid eligibility is established, a "package" of aid is provided which may be a combination of grant, work-study, and loan funds.

Pierce College prefers to meet a student's need with a combination of grant and self-help aid whenever possible.
Students will be mailed a Financial Aid Offer Letter together with an Award Guide, which explains the responsibilities of the student and provides information on each award.

## Fund Disbursement

Financial aid funds are generally available two weeks after the student receives an Award Letter from the Financial Aid Office. Students, who submit their required financial aid documents by May 1 may expect to receive their first aid disbursement during the first week of the Fall semester, provided that all established deadlines have been met. Financial aid funds may either be transferred electronically to the student's bank account (preferred method) or mailed to the student's mailing address.

To participate in Electronic Fund Transfer (EFT), the student must complete an EFT authorization card (available in the College Business Office) and submit the card and a copy of a voided check or bank statement, which displays their account number, to the College Business Office. Please allow four (4) weeks for the Business Office to process your request.

Please be aware that all Financial Aid checks are disbursed either through Electronic Fund Transfer or at the College Business Office. Checks are never disbursed at the Financial Aid Office.

For students participating in EFT: Financial Aid warrants are not forwarded, so it is important that the mailing address in the Admissions Office be current.
Student's wishing to pick up their financial aid funds on campus or to have their financial aid checks mailed, must file a request with the College Business Office.

## Disbursement

Pell and FSEOG Grants are scheduled for payment twice a semester. Pell Grant checks are based on the number of units the student is enrolled in at the time of disbursement. Full time is considered 12 or more units per semester; $3 / 4$ time is considered 9-11.5 units per semester; $1 / 2$ time is considered 6-8.5 units per semester; less than half time is $1-5.5$ units per semester. FSEOG Grant checks require enrollment in six (6) or more units.
Federal Work-Study is paid through payroll every two weeks.
Federal Student Loan recipients must be enrolled at least half-time (6) units at LAPC and maintain half-time enrollment in a Degree, Certificate or Transfer program. Loans are disbursed in two equal amounts, once per semester, for students attending two semesters in the academic year. For students requesting a loan for one semester only, the loan will be disbursed in two equal amounts, within the one semester

## Federal Refund Requirements

Students who receive federal financial aid and totally withdraw from ALL classes may have to repay some of the federal funds received prior to withdrawal.

Students who receive federal funds and withdraw from the institution prior to the first $60 \%$ of the term, Nov. 7, 2007, are subject to Federal Refund Regulations. The Financial Aid Office will calculate the amount of federal funds earned up to the point of withdrawal and students will be billed and must repay any federal grant funds received but not earned. Failure to repay these funds will result in the denial of future federal financial aid anywere in the United States.

It is advised that you contact the Financial Aid Office before withdrawing from all of your classes so you understand the results of your actions.

For the refund policy on enrollment fees and non-resident tuition, please see the College Schedule of Classes or the College Catalog.

## Determining Financial Need

Most financial aid awards are based on demonstrated financial need, which is the difference between the Cost of Attendance (COA) and the Expected Family Contribution (EFC), e.g., Cost of Attendance minus Expected Family Contribution equals Financial Need.

## Cost of Attendance

In order to treat all students equally, standardized budgets (Cost of Attendance) are established and applied to all applicants. This means all students with similar circumstances will receive the same allowance for tuition and fees, books and supplies, room and board, personal expenses, and transportation.

Other expenses may include, but are not limited to, child-care, vocational/technical, and handicapped expenses. Exceptions may be made to the budget in the cases where need can be shown and documented.

## 2007-2008 Average Cost of Attendance

|  | Living at home <br> $\mathbf{9 ~ M o s . ~}$ |  | 12 Mos. | Living Away from Home <br> $\mathbf{9}$ Mos. |
| :--- | ---: | :---: | :---: | :---: |
| Fees | $\mathbf{1 2}$ Mos. |  |  |  |
| Books \& Supplies | 1,314 | 1,971 | 1,314 | 1,971 |
| Room \& Board | 3,348 | 4,464 | 8,910 | 11,880 |
| Transportation | 954 | 1,272 | 1,062 | 1,416 |
| Personal Expense | 2,826 | 3,768 | 2,466 | 3,288 |
| Total | $\mathbf{9 , 1 4 0}$ | $\mathbf{1 2 , 5 7 1}$ | $\mathbf{1 4 , 4 5 0}$ | $\mathbf{1 9 , 5 9 1}$ |
| Non Resident Tuition is added to fees, <br> depending on the student's residence code. |  |  |  |  |

## Expected Family Contribution

Students and/or their parent(s) are expected to contribute something to the cost of higher education. Parental and/or student contributions (EFC) are determined from the information reported on the FAFSA and take into account the resources available such as income, assets, liabilities, size of family, number in college, taxes paid, etc.

## Dependent Cbild Care

This is an adjustment to Cost of Attendance provided to students with unusual and reasonable expenses for dependent/child care up to a maximum of $\$ 1,000$.

A student with spouse attending the same school will receive a maximum of one child-care allowance per family.

## Technical-Vocational Program

Institutions may make adjustments for students in trade vocational programs that require supplies and equipment above and beyond the normal budgeted allowance for books and supplies. Some of these programs include: Registered Nursing, Physical Therapy, Animal Health Technology, Auto Mechanics, Photography and others where documentation is submitted to support the additional cost.

## Handicap Expenses

As documented and in excess of amounts provided by other agencies.

## Other Resources Affecting the Cost of Attendance

## Veterans Education Benefits

Veterans Education benefits and Americorps benefits must be included as resources when determining financial awards. For additional information, see the Veterans Assistant at the Veterans Office.

## Outside Resources

Benefits received from various programs such as TANF/CalWORKs, JTPA, CARE, must be used as a resource. Vocational Rehabilitation benefits are taken into consideration when determining awards.

## Student Rights and Responsibilities

## Rights

All Los Angeles Community College students who apply for and receive financial aid have a right to the following:

1. Information regarding all available sources of financial aid funding from federal, state and institutional programs.
2. Application deadlines for all financial aid programs including deadlines for the submission of requested supporting documentation.
3. Specific information regarding enrollment fees, tuition and refunds due from students who withdraw from school prior to the end of the semester.
4. An explanation of how financial need is determined. The process includes establishing budgets for the costs of tuition and fees, books and supplies, room and board, transportation, personal and miscellaneous expenses, child care, etc. Financial need is determined by the Central Processor from the information provided on the FAFSA. Student's and parents assets are also considered, as well as, other scholarships and awards.
5. Information regarding the resources considered in the calculation of need.
6. Information regarding financial aid "packaging."
7. An explanation of the various programs awarded in the student's financial aid package. If a student feels that he/she has been treated unfairly, a reconsideration of the award may be requested.
8. An explanation regarding requests for repayment of funds. This situation occurs when students withdraw prior to the end of the semester. Students must receive a clear explanation of the program funds that do not need to be repaid as well as the portion of the grant aid that he/she is required to repay. If the student received a loan, the student is entitled to know the interest rate, the total amount to be repaid, the date repayment is to begin and the conditions of deferment and cancellation.
9. An explanation of how the Los Angeles Community College District determines whether students are making "satisfactory progress" and what happens if they are not.
10. Information regarding facilities available for handicapped students.

## Responsibilities

Students must take responsibility for:

1. Reviewing and considering all information regarding the Los Angeles Community College District academic programs prior to their enrollment.
2. Completing all the application forms ACCURATELY AND COMPLETELY and submitting them on time. If this is not done, aid may be delayed as errors cause misunderstanding and misrepresentation of information provided.
Errors must be corrected before any financial aid can be received. Intentional misreporting of information on the application form for federal financial aid is a violation of the law and is considered a criminal offense subject to penalties under the U.S. Criminal Code.
3. Promptly returning all additional documentation, verification, corrections and/or new information requested by either the Financial Aid Office or the agency or agencies to which an application was submitted.
4. Reading and understanding all forms that the student is asked to sign.
5. Notifying the lender of changes in name, address or school status, if the student has a loan.
6. Performing the work that is agreed upon in accepting a college work-study award.
7. Knowing and complying with the deadlines for application or reapplication for aid.
8. Knowing and complying with the Los Angeles Community College District Title IV Refund Policy.
9. Repaying financial aid funds if it is determined that the student was ineligible to receive the funds.

## Satisfactory Academic Progress Policy

The Satisfactory Academic Progress Standards, listed in this catalog, are effective at the beginning of the 2007-2008 academic year.

## General Information

In accordance with the Higher Education Act of 1965, as amended, the Los Angeles Community College District (here after referred to as LACCD) established the following Standards of Academic Progress. These Standards apply to all students who apply for and receive financial aid from the programs listed below.
(Note: The Board of Governor's Fee Waiver Program, (BOGFW), established to help students pay the California Community College Enrollment Fee, is specifically omitted from the list below. An eligible student enrolled at one of the Los Angeles Community College District institutions who applies for an enrollment fee waiver will be granted the assistance irrespective of his/her status under these academic provisions.)

- Federal Pell Grant
- Federal Supplemental Ed. Opportunity Grant (FSEOG)
- Federal Work Study (FWS)
- Federal Perkins Loan
- Federal Family Educational Loan (FFEL)
- Federal Direct Student Loan (FDSL)
- Cal Grant B and C
- Child Development Grant
- Academic Competitiveness Grant

Professional Judgment may be exercised in applying these standards in accordance with Section 479A of the Higher Education Act of 1965 As Amended Through June 1994.

Satisfactory Academic Progress Standards are reasonable if they are the same as or stricter than the institution's standards for a student enrolled in the same educational program who is not receiving assistance under Title IV Federal Financial Aid Programs.

Previous coursework earned at any college within the LACCD will be reviewed for compliance with the standard put forth in this policy.

## Academic Renewal and Repetitions

- For policies and procedures related to Satisfactory Academic Progress such as Academic Renewal and Course Repetitions, etc., please refer to the school Academic Policy Section of the College Catalog.


## Eligibility

- After eligibility is established, subsequent satisfactory academic progress review will consider academic performance at all colleges throughout the LACCD.


## General Requirements

Students receiving financial aid must be enrolled in an eligible program. An eligible program is defined as:

- An educational program that leads to an associate, bachelor's, professional, or graduate degree, or
- An educational program which is at least a two-academic-year program that is acceptable for full credit towards a bachelor's degree, or
- An educational program which is at least a one-academic-year training program that leads to a certificate, degree, or other recognized educational credential and that prepares a student for gainful employment in a recognized occupation.


## Satisfactory Academic Progress Standards

1. Fewer than ninety (90) attempted units for students who indicated AA degree or transfer as their educational goal.

- ESL and Basic Skills/Remedial classes are excluded from the ninety (90) unit limit when determining units attempted.
- Students who have already earned an Associate or higher degree will need to follow the appeal procedure at Pierce College.
- In progress (IP) grades count as attempted units in the maximum time frame only. They do not affect cumulative grade point average in the qualitative measure nor are they included as completed units in the quantitative measure.

2. Completion of $75 \%$ of cumulative units attempted.

- Entries recorded in the student's academic record as Incomplete (INC), and/or Withdrawal (W) are considered non-grades and must be $25 \%$ or less of the cumulative units attempted.


## Application of Standards

1. Academic progress for financial aid students will be determined prior to the beginning of the academic year.
2. Students who are disqualified from financial aid will be notified by mail and receive the procedure for appeal.
3. A student who has been disqualified at any college in the LACCD is disqualified at all colleges within the LACCD.
4. A change of one (1) educational goal or major course of study will be allowed when determining financial aid eligibility.
5. Disqualification

- Students will be disqualified if they have one or more of the following academic deficiencies at the end of the Spring semester.
- Total units attempted (excluding ESL and Basic Skills/Remedial classes) are equal to or greater than ninety (90).
- Associate or higher degree has been earned.
- Cumulative GPA is less than 2.0.
- Cumulative non-grades are more than $25 \%$.

6. Warning Letter

- Cumulative GPA is less than 2.0.
- Cumulative non-grades are greater than $25 \%$.
- Number of attempted units reaches forty-five (45).


## Determining Enrollment Status for <br> Financial Aid Recipients

In determining whether or not a student is making satisfactory progress, the student's enrollment status is defined as follows:

- If a student receives a full-time Pell Grant or Cal Grant, the student's enrollment status is considered full-time ( 12 or more units for that semester).
- If a student receives a $3 / 4$ time Pell Grant or Cal Grant, the student's enrollment status is considered $3 / 4$ time ( 9 to 11-1/2 units for that semester).
- If a student receives a $1 / 2$ time Pell Grant or Cal Grant, the student's enrollment status is considered $1 / 2$ time ( 6 to $8-1 / 2$ units for the semester).
- If a student only receives a loan, the student must maintain a minimum enrollment of $1 / 2$ time ( 6 units per semester) for the entire loan period.
- If a student receives only Federal Work-Study, the student must maintain enrollment in a minimum of six units per semester while employed.


## Consortium Agreements

In the determination of enrollment status, it is permissible for a student to count units being taken at another college within the LACCD. However, there are some programs requiring that specific units be taken at Pierce College in order to be eligible for a Consortium Agreement.

Classes taken by students at more than one college within the LACCD, are automatically included in the review of satisfactory progress.

Please note: Los Angeles Pierce College does not participate in consortium agreements outside of the LACCD.

## Maximum Time Length

Students attending for the purpose of obtaining an Associate of Arts Degree (AA), an Associate of Science Degree (AS), a certificate, or completion of requirements for transfer to a four year college, are allowed 90 attempted units in which to complete their objective.

- Exceptions will be made only when the requirements of a student's objective cause the student to exceed the maximum time limit.
- Short Length Certificate Programs.

Some certificate objectives at the L.A. Community Colleges may be completed in less time than that required for the Associate of Arts, Associate of Science and Transfer objectives.

The following table shows the normal completion time and maximum time for certificate programs and varying length.

| Units required for the <br> Certificate Program | Normal <br> Length | Maximum <br> Length |
| :---: | :---: | :---: |
| 10 to 24 | 2 semesters | 3 semesters |
| 25 to 36 | 3 semesters | 5 semesters |
| 37 to 48 | 4 semesters | 6 semesters |

To be eligible for financial aid, a program must be at least six (6) months in length with a maximum of sixteen (16) units. Students enrolled in a certificate program may continue to qualify for financial aid up to ninety (90) attempted units, six (6) full-time semesters, or the equivalent, if they are planning to obtain an A.A. or A.S. degree or to transfer to a four-year school in addition to obtaining the certificate.

## Summer Financial Aid

Satisfactory academic progress standards will be applied to the Summer Session(s) and Winter Session(s) for Summer and Winter Pell Grant recipients and are included in the evaluation of Satisfactory Academic Progress.

## Appeal Procedure for Reinstatement of Financial Aid

Students who have been disqualified from receiving financial aid for unsatisfactory academic progress may appeal for reinstatement by submitting a written appeal to the Financial Aid Office in compliance with the formal letter of disqualification.

- The formal appeal must be submitted within 30 calendar days from the date of the disqualification letter.
- The Appeal Request Form should be completed in ink or typed and consist of a written statement from the student as to why he/she is appealing the disqualification.

Reinstatement may also be granted for reasons listed below:

- The death of a relative of the student;
- An injury or illness of the student;
- Other special circumstances.

If the appeal for unsatisfactory academic progress is denied or the student fails to submit the appeal within 30 calendar days from the date of the disqualification letter, the student may re-appeal after completing one semester in which all satisfactory academic progress standards have been met.

## Fraud

A. A student who attempts to obtain financial aid by fraud, will be suspended from financial aid for unsatisfactory conduct.
B. The college may report such instances to local law enforcement agencies, to the California Student Aid Commission, and/or to the Federal Government.
C. Restitution of any financial aid received in such manner will be required.

## Other Information You Should Know

## Change of Enrollment

If your enrollment status changes during the semester please inform the Financial Aid Office. Your financial aid award may be modified to reflect the correct number of units in which you were enrolled at the time of the 2 nd disbursement check run. The adjustment of enrollment may cause an overpayment of financial aid funds. Repayment of financial aid funds is necessary if the adjustment of enrollment causes an overpayment. You must resolve your overpayment prior to receiving any additional financial aid. Having an overpayment of federal funds will prevent you from receiving federal financial aid from any institution.

## Return to Title IV

The student's eligibility for Financial Aid is based upon enrollment. The Higher Education Amendments of 1998 govern the Return of Title IV funds policy for a student who completely withdraws from a period of enrollment (i.e. semester). These rules assume that a student "earns" aid based on his/her semester enrollment.
"Unearned" aid, other than Federal Work-Study, must be returned. Unearned aid is the amount of federal financial aid received that exceeds the amount the student has earned. Unearned aid may be subject to repayment.
During the first $60 \%$ of the semester enrollment a student "earns" aid in direct proportion to the time of his/her enrollment. The percentage of time the student remained enrolled is the percentage of aid for that period which the student earned. A student who remains enrolled beyond the $60 \%$ point of the semester, Nov. 7,2007 , earns all of his/her aid for the period.

## State Tax Offset

Students should be aware that state income tax refunds may be offset by the institution in repayment of financial aid funds if it is determined the student is ineligible to receive funds, has defaulted on a student loan, or owes other debts to the school.

## Financial Aid Websites

- Pierce College Financial Aid Website www.piercecollege.com/offices/finaid
- FAFSA on the web - www.fafsa.ed.gov
- Cal Grant Website - www.calgrants.org
- Help in completing the FAFSA -
www.ed.gov/prog_info/SFA/FAFSA
- The Student Guide www.ed.gov/prog_infor/SFA/studentguide
- Track your Federal Student Aid www.nslds.ed.gov


## Telephone Numbers

- Financial Aid, Scholarships and Veterans Office (818) 719-6428
- California Student Aid Commission (888) 224-7268
- Central Loan Administration Unit (Perkins Loan) (800) 822-5222
- Department of Veterans Affairs (800) 827-1000
- Direct Loan Servicing Center (800) 848-0979
- FAFSA on the Web -
(800) 801-0576
- Federal Student Aid Information Center (800) 433-3243


## Services and Resources

## Business Office

All student finances are handled through the Business Office. Services available are: collection of fees for enrollment, non-resident, audit, parking, and ASO. The Business Office also processes child development payments, RTD passes. Grant checks are distributed by this office and repayment collected for returned checks.

## Campus Child Development Center

Southeast corner of parking lot 7, across from Campus Center (818) 719-6494.

The Campus Child Development Center serves two purposes: 1) To provide a high quality preschool level program for the children of Pierce students, and 2) To provide a model program as a field site for adult students studying Child Development and related fields.

The Child Development Center offers a developmentally appropriate program to children 2.9 years of age through five years of age and toilet trained, whose parents are enrolled at Pierce College. The Center is open from 7:45 a.m.-7:00 p.m. Monday through Thursday, and 7:45-4:00 p.m. Friday. The following sessions are available: MWF, TTh or M-F 8:00-3/4:00 p.m.; MWF, TTh or M-F 8:00-12:00 noon; MWF, TTh or M-F 12:00-3/4:00 p.m. and 3:007:00 p.m. Monday-Thursday. The program is staffed by highly educated and experienced teachers, and offers a minimum of 7.5:1 ratio in each classroom. Our program runs as a State Preschool Program, offering primarily state-subsidized child care spaces. Our Center is NAECP accredited. (National Association of Early Childhood Programs).

The Campus Child Development Center also is utilized as a practicum site for students studying Child Development and related fields. Adult students have an opportunity to gain experience working with young children as they study to become early childhood educators and directors.

## Los Angeles County Sheriff's Office

Pierce College is patrolled by Los Angeles County Sheriff's Deputies and Security Officers. The Sheriff's Deputies are Peace Officers pursuant to Penal Code section 830.1. The Sheriff's Security Officers are defined as "Public Officers," authorized by Penal Code section 831.4 and have received additional Peace Officer training per Penal Code section 832.

The Pierce College Sheriff's Office is responsible for reporting and investigating crimes, issuing traffic citations, responding to medical emergencies, traffic collisions and fire emergencies, as well as other incidents that require their assistance. Please report traffic accidents, injuries, thefts, items lost and found, or any unusual circumstances to the Sheriff's Office. The Sheriff's Office is located in front of the men's gym and is staffed twenty-four hours a day, seven days a week.

In case of an emergency there are Blue Emergency Phones at various locations around the campus. You may also use the on campus pay phones to contact the Sheriff's Office by dialing *80. These phones are to be used in cases of emergencies or to report serious matters requiring immediate attention.

Parking lots are patrolled for your protection by the campus Sheriff's Deputies, Sheriff's Security Officers and Law Enforcement Cadets. Please lock your vehicle and do not leave anything of value visible. Valuables should be locked in the trunk of the vehicle. Evening escorts are available for students and faculty. Requests for escorts can be pre-arranged by contacting the Campus Sheriff's Office at (818)719-6450 or Ext. 6450 from campus phones. This is to ensure a more timely and prompt service.
Students will need to seek outside assistance for any vehicle problems such as keys locked in the vehicle, out of gas and dead batteries.
The Campus Sheriff's Office issues citations for illegal parking and for traffic violations. Please observe all Parking and Traffic Regulations as posted. Parking citations are a minimum of $\$ 30$. A citation for parking in a handicapped zone is $\$ 330$. For further information on parking citations you may call the citation hotline at (818) 710-2550. All unpaid citations are sent to the D.M.V. for registration hold; penalties are added. Be sure to read the current schedule of classes for specific parking and safety rules.
You may inquire at the Campus Sheriff's Office regarding lost property. However, you may also need to check the location(s) the item(s) were presumed to be lost. The Library, Information Desk and the Bookstore each have their own temporary lost and found storage.

Dogs are not allowed on campus with the exception of guide dogs for the blind. Skateboards, roller skates and roller blades are not permitted on campus.

## Student Right to Know

Los Angeles Pierce College in compliance with the Federal Students Right to Know and Campus Security Act of 1990 provides campus crime statistics in the college schedule of classes.

## Counseling Services

The Counselors at Pierce College are trained in educational planning, career planning and personal counseling. Our goal is to help students clarify their goals, realistically evaluate their own strengths and challenges, and learn to develop their planning skills to achieve their goals.

Here is what we hope to accomplish with you, depending on your circumstances and needs:

- Clarification of Issues/Problems

The student will understand and/or articulate the need to define clearly the issue to be addressed in Counseling before moving on to the next steps.

- Realistic Self-Assessment

The student will be aware of and/or able to critically evaluate and integrate personal factors (interest, potential, limitations, financial, family, etc.) that may influence educational/career decisions.

- Educational Planning

The student will be aware of and/or able to create and put into effect a plan of action to reach an educational goal (integrating self knowledge, program demands and requirements).

## Educational Planning and Counseling

Counselors assist students in setting educational goals, exploring alternatives, making decisions regarding their academic programs and understanding the effects of having made these decisions. Short-term courses are also offered to help students develop skills in such areas as decision making and personal development. Counselors are located in the main Counseling Office in the Administration Building. Appointments may be made in the Counseling Office.
Faculty advisors, located in most departments, will also help students with academic and career information related to courses and programs in the academic area of the advisor.

## Personal Counseling/Help Center

Students can obtain personal counseling from counselors in the Counseling Office. Counseling is available to students who feel a need for short-term help with personal problems or in a crisis situation. Assistance may be provided through a limited number of individual counseling sessions and referrals. To make an appointment to see a counselor, call 818-719-6440 or go to the Counseling Office in the Administration Building, ADM 1000.

## Career Center

The Career Services provided are individual career counseling appointments, personal development classes and workshops in career planning and job seeking skills for those persons undecided about their career or educational goals. A library of occupational information, including a computerized career information system, is available. The Career Center is located in the Administration Building.

## The Transfer Center

Elizabeth Atondo
Transfer Center Director
818-710-2516
eatondo@piercecollege.edu
The Transfer Center provides students with the resources they need to plan their educational goal of obtaining a bachelor's degree.

Students can personally meet with representatives from UCLA, CSUN and UCSB to name just a few. We also have catalogs, web resources, applications and five workstations with internet connectivity. Please refer to the Transfer Information section of this catalog for more information.

## Vocational Rehabilitation Services

Students who have a physical, emotional, or other disability may be eligible for the services of the State Department of Rehabilitation.

These services include vocational counseling and guidance, training (including payment of college costs), and job placement. Under certain circumstances students may also qualify for help with medical needs, living expenses and transportation and other services.
For further information appointments may be made with a counselor in the Special Services Office.

## Veterans Advisement

Veterans Advisement is available to all veterans and veteran dependents who desire to use their benefits. The Veterans Office is in the lobby of the Financial Aid Office in the College Services Building.

## Study Abroad Program

Los Angeles Community Colleges offer a unique opportunity to study in a foreign country while earning college credit. Students interested in obtaining further information should contact the Career/Transfer Center.

## Disabled Students Programs and Services

Students with physical, psychological or learning disabilities are offered a wide range of services including registration, special parking and counseling. These services are also available to students with a temporary disability such as injury or post-operative recuperation. All services and equipment are provided free of charge to any qualifying disabled student.

Deaf and learning disabled students are offered additional services including special classes, tutoring and computer-assisted instruction.

The Disabled Students Office is located in the Administration Building, room 1024. The Office is open Monday through Friday from 7:30 a.m. until 4:30 p.m.
The following special services are offered:

- Interpreter services for the deaf
- Notetaking services
- Mobility assistance
- Specialized tutoring
- Registration assistance
- Special parking areas
- On-campus transportation
- Academic and career guidance
- Braille Printer
- Perkins Brailler
- Print magnifier
- Specially adapted computers


## Extended Opportunity Program And Services (EOPS) and C.A.R.E.

Extended Opportunity Programs and Services (EOPS) is a statefunded comprehensive support system which recruits and assists qualified low-income students who have educational disadvantages. EOPS provides academic counseling, career exploration, tutoring, priority registration, book services and workshops aimed at helping students succeed in college. Participants must be full-time students. EOPS participants who are single parents with children under the age of 14 may receive additional services if they qualify for C.A.R.E. (Cooperative Agencies Resources for Education).

## EOPS/CARE Student Learning Outcomes

It is the goal of EOPS to ensure that each participating student is proficient in understanding the complexities of higher education, knowledgeable of resources necessary to be successful in their studies and to develop a "road map" to achieving their objectives. EOPS evaluates its effectiveness in providing quality services by identifying student learning outcomes and assessing the extent to which students have achieved those outcomes.

## Counseling

- Students will:

1. Identify their career objective
2. Identify their academic objective
3. Will follow their Student Educational Plan developed in conjunction with their EOPS Counselor

## Support Services

- Students will enhance their academic success by:

1. Participating in EOPS Tutoring
2. Receiving books through the EOPS Book Service
3. Participating in Academic Probation Workshops

- Students will develop a sense of self-worth and accomplishment by participating in the annual EOPS Graduation/Transfer ceremony.
- Students will be successful participants in EOPS by attending an EOPS New Student Orientation.

EOPS is located in The Village, Bldg 2, Room 8213. Office hours are 8 a.m. to $3: 45$ p.m., Monday through Friday. Early morning and evening appointments can be made by special arrangement.

## Food Services

## Cafeteria

The Cafeteria Building is located next to the Campus Center. Open Monday through Thursday. The main line Dining Room serves hot entrees, a sandwich deli, soup, fresh salad bar, and pastry. Cafeteria Hours: 6:45 a.m. to 6:00 p.m., Monday through Thursday, but subject to change. Closed Fridays.

## Freudian Sip

Located next to the Student Store, Freudian sip, a cybercafé, is an exciting gathering point for the Campus' Community and its visitors. Freudian Sip provides a vibrant, interactive environment of multimedia sights and sounds to accompany its diverse, high quality coffee house food and beverages. The 'Sip does catering, as well from 5-1500 people. We look forward to serving you.

Freudian Sip Hours: 7 a.m. to 9 p.m., Monday through Thursday; 7 a.m. to 4 p.m., Friday; 8 a.m. to 12 p.m., Saturday. (Hours subject to change.)

## Vending Machines

Located at various locations on campus. Serving hot and cold drinks, sandwiches, fruit and other miscellaneous snack items. Change machines are available in various vending machine locations.

Information or problems with any or all services, call (818) 719-6412 from 7 a.m. to 2 p.m., Monday through Thursday.

## GAIN/CaIWORKs Program

The Pierce College GAIN/CalWORKs Program serves students who are currently receiving cash public assistance (CalWORKs) for themselves and at least one child under the age of 18. Students may be referred to the program by their GAIN worker or may already be a student at Pierce.

The program provides a variety of services designed to help students achieve academic success, economic self-sufficiency and career advancement. Among the services available through the program are:

- Case management coordination and advocacy.
- Academic, personal and career counseling.
- No-cost books \& supplies, child care and transportation grants.
- Work-study employment.
- Employment readiness, personal growth and informational workshops.
- Post-employment skills upgrading.
- Referrals to on-campus and community supportive services, such as counseling and legal resources.
- TANF Child Development/Careers Program.

The GAIN/CalWORKs office is located in Village 8360.
Our hours are Monday-Thursday, 8:30 a.m. to 4:30 p.m. We are closed noon to 1 p.m. for lunch and on Fridays. Late afternoon appointments for working students may be arranged by request. Phone: 818-719-6400. We are located next to the football stadium.

## Health Services

A variety of health services are available in the Student Health Center located in the Campus Center. The center provides first aid, crisis intervention, health assessment, health counseling, health referrals and health information. Students are welcome to drop in or call 710-4270 for an appointment to see a physician, the college nurse, or a nurse practitioner.

The Student Health Center can provide low cost family planning services, extensive gynecological care, and the testing for, diagnosis of, and treatment of sexually transmitted diseases. Most bacterial infections can be treated with low-cost antibiotics that the Health Center can supply. Free condoms and over-the-counter medications are also provided on an as needed basis.
Consultation and/or referral regarding personal and emotional problems affecting a student's educational progress are available through the Student Health Center or the Help Center in the Counseling Office. In addition, a licensed psychologist is available to students for short-term personal counseling. Appointments are made through the Health Center at 710-4270.

It is strongly urged that an identifying emblem be worn by persons with any medical problems or allergies. Students with known physical impairments must limit enrollment to courses in which they may participate with safety.

Students are encouraged to obtain a medical insurance plan. Several commercial student sickness, accident and dental plans are available. A dental plan is also available. Information and applications for plans may be obtained in the Student Health Center.

Students who need medical assistance when the Student Health Center is closed should contact the Campus Police.

Students participating in competitive sports are required to have a physical exam. The Health Center is not able to offer sports physicals based on restrictions found in the Education Code. Students should contact their coach/trainer for information regarding physical exams.

## Help Center

The Help Center provides personal and crisis counseling for students whose problems are interfering with their academic, career, and/or social functioning. This service is provided by designated counselors in Counseling and Special Services.

The Center helps students with problems of depression, anxiety, suicidal thoughts, relationship issues, sexual abuse, and other problems. When appropriate, referrals are made to private clinicians, community mental health facilities, the Health Office, or other community agencies.

For appointments, please call (818) 719-6440, or drop by the Counseling Office.

## International Students Program

International Education is a major undertaking of Pierce College. Our goal is to provide the unique support services needed by nonimmigrant international students on F-1 visas. The college seeks to foster mutual respect and understanding for the diversity of cultures, languages and ideas of the people of the world. A warm welcome is extended to students from all over the world.

Students seeking to enter the college on an F1 visa need to contact the International Students Admissions Office as soon as they decide to study at Pierce College. Admissions requirements for international students are different from those for resident students and nonresidents on other types of visas. The application package can be obtained from:

> International Students Admission: PMB 304
> Pierce College
> 6201 Winnetka
> Woodland Hills, CA 91371 USA
> website: www.piercecollege.com
> email: intlstu@piercecollege.edu

Application Deadlines - Rolling (year round). See website and class schedules for exact dates.

Students are advised to apply 6-9 months in advance of the semester they wish to begin. New students are admitted for either the fall or spring semesters only, no summer or winter session admissions.

Upon admission, the student is notified of required arrival dates and scheduled for a mandatory orientation meeting. A counselor is available to assist students with academic, career, personal, visa and immigration questions.

All F-1 students must maintain their status by meeting specific requirements outlined by United States federal regulations under the Department of Homeland Security. Students must complete 12 units each semester, must maintain a 2.0 overall grade point average, must not accept unauthorized employment, must have a valid passport and must have a current I-20. Admitted students are required to seek advisement from the Designated School Official (DSO) in the International Students Program for any and all issues affecting their visa status.

Although the college does not have any dormitories, students can receive information about rentals and homestay programs from the International Students Program Office or our website. See links to Homestay Progams under "FAQ's - Frequently Asked Questions."

## Instructional Media Center

The Instructional Media Center is located on the ground floor of the Library.

Office hours: Monday through Thursday, 7:45 a.m. - 4:30 p.m. and 5:00 p.m. -10:00 p.m., Friday, 7:45 a.m. - 4:00 p.m. .
Students may receive supplemental instruction in language, history, media arts, and other disciplines using the Media Center's library of audio and videotapes. Faculty may check out instructional materials such as VHS tapes and DVD's for use in their classes. The IMC also duplicates and tapes off-air or from satellites, instruction-related programs for class use by faculty, subject to copyright laws and off-air taping regulations. Students are encouraged to supplement their studies by using the services of the Instructional Media Center.

## The Learning Center (TLC)

The Learning Center is committed to helping students in need of academic support acquire the skills and tools necessary to meet their individual academic, vocational, or personal goals. All tutoring services are free to currently enrolled Pierce College students.
**Students who wish to print from TLC 1604 must purchase a print card at the Pierce College Bookstore ( $\$ 3$ minimum).

## Services include:

COMPUTER LAB (TLC 1604): 63 computer stations are available for student use. Students may utilize word processing for class-related work, access the Internet, or take advantage of computer assisted instructional programs. Students will need to purchase a print card from the bookstore in order to print documents.

Hours: Monday - Thursday 8 a.m. -8 p.m. Friday 8 a.m. - 2 p.m. Saturday - Hours added as needed
TUTORIAL PROGRAM (TLC 1630): The Learning Center tutoring program offers free individual and/or group tutoring in a variety of subject areas. Students must make appointments in advance; appointments are 30 minutes in length. Walk-ins will be seen only if tutors are available, on a first-come, first-served basis. Check the Learning Center website, call (818) 710-6414, or stop by the tutoring center for more information.

Hours: Monday - Thursday 9 a.m. -8 p.m.
Friday 9 a.m.- 2 p.m., Saturday - closed

## Winter and Summer Session Hours: To Be Announced.

For more information, please call (818) 710-6414

## Learning Disabilities Program

The Learning Disabilities Program, located in the Disabled Students Office, assists college students with the essential tools needed for success in their classes. Many students need help in basic reading, spelling and arithmetic skills as well as individualized special techniques for the realization of their full potential academically or vocationally.

The student's problems are diagnosed, and an individual program is designed to meet their needs. Students advance at their own rate using a large variety of instructional materials. Special classes and tutorial sessions provide assistance. Specialized tutoring in regular classes can be provided by arranging for individualized adaptations with instructors.

## Student Employment and Housing Services (The Job Center)

## Employment

Students seeking employment are encouraged to use the student employment service (job placement). The office is well known in the business community and employers are constantly placing job orders for skilled and non-skilled employment opportunities in diverse occupational fields. Referrals are available to all enrolled students, graduates, and the community for part-time, full-time, temporary and summer work. The Employment Development Department has a satellite office at this location. www.piercecollege.edu/offices/jobcenter

## Housing

The office maintains a listing of room and board opportunities in nearby private homes in exchange for work or for rent, as well as sharing situations with other students. Occasionally, houses and guest houses are available. The college does not inspect accommodations which are listed and assumes no responsibility.

## Location

The Student Employment Service is located in BUNG 0327.

## Student Store

Pierce College's Student Store is located next to parking lot \#1 in the College Services Building. The store is a meeting place and an adjunct to both the academic and social life of the campus. It is an academically oriented resource, where the need for and interest in reading and study engendered in the classroom can be nurtured and reinforced. The store is also a social focal point on the campus, offering many goods and services required by the college community.

Pierce College's Student Store is owned and operated by the Los Angeles Community College District, under policies set down by the Board of Trustees.

The purpose of Pierce College's Student Store is to provide for the sale of book and supply requirements connected with the academic programs of the college. The Student Store is operated on sound business principles in the anticipation that its income will cover both its operating expenses and its attributable capital development costs.

## Veterans Services

Veterans applying for educational benefits are responsible for knowing the VA eligibility requirements and regulations. In addition, they must meet the school admission requirements and supply the college with copies of official transcripts from previous training. Applications for VA educational benefits, as well as additional
information, may be obtained from the Veterans Administration or the staff in our Veterans Office. The VA requires that students request the school's veterans counselor to determine transferable credits before starting their second semester at Pierce.

Programs at this college are approved for payment by the Veterans Administration through the Council of Private Postsecondary Education. To receive payment when repeating a class, students must obtain approval from the school's veterans counselor.

## Educational Benefits

Veterans attending under the provisions of Public Law 94-502 receive payments at the prevailing rates. A copy of the law is posted in the Veterans Office. Checks received during the month cover the previous month's attendance.

## Overpayment to Veterans

The Veterans Administration holds veterans liable for overpayment received for reasons including failure to notify the VA and the school's Veterans Office when they drop a class or receive an incomplete grade. Veterans who receive overpayment should promptly notify the VA and the school's Veterans Office in the College Services Building. The VA allows veterans to drop classes prior to the "last day to drop classes" as published in the Schedule of Classes. Veterans who drop classes after this date must provide the VA with a letter of explanation. Any change of program or enrollment status must be reported to the Veterans Office at Pierce College. The Veterans Counselor in the Counseling Center must approve classes at the beginning of each semester.

## Credit for Military Service

Pierce College grants up to six units of credit for military service. Credit will also be granted for some classes at special military schools. Granting of credit for elective units is based on the veteran's compliance with the following guidelines:

1. Current enrollment.
2. Having served at least 181 days in the armed services.
3. Presenting a copy of military separation paper (DD214) when petitioning for elective credit.

## Tutoring

Veterans may apply to the Veterans Administration for reimbursement of tutorial services. Such reimbursement is limited to 12 months, and based on approval arranged through the Veterans Office.

## Student Activities

## Co-Curricular Activities

Co-Curricular or extra class activities are intended to provide students with the opportunity to be better prepared to fulfill the duties of citizenship in a democratic society and enrich their educational and personal development. This may be accomplished through extra class cultural activities, volunteer programs related to
the instructional program, community-related affairs, athletics, and student government. Students learning to work with groups will develop skills to prepare them for cooperative and meaningful associations in both occupational and personal pursuits.

The development of a student activity program is a vital portion of the obligations that both faculty and administrators assume for students in any American college community. At Pierce, student activities are an integral part of the educational program.

## Intercollegiate Athletics and Eligibility

Intercollegiate Athletics are an integral part of the total college program. Men and women compete in the Western States Conference in all sports. The sports offered for men are baseball, basketball, football, swimming, tennis and volleyball. The sports offered for women are soccer, softball, swimming, volleyball, and basketball.

## Eligibility

All questions pertaining to athletic eligibility should be directed to the Director of Athletics at (818) 719-6421.

## Student Publications

The Media Arts Department, through its journalism and photography disciplines, offers a variety of media experiences to its students. All publications are produced as a learning experience and as part of the college instructional program. Students generally must pass an entry-level class in order to enroll in the advanced courses which produce the publications.
The courses offered through the department are rigorous. Since we are training future journalists and photojournalists, we strongly believe in and enforce deadlines. Writing and photography assignments turned in past the deadline are given an " F ."

The publications are all members of the California Newspaper Publishers Association, the Associated Collegiate Press and the Journalism Association of Community Colleges. They operate under the codes of ethics adopted by the Society of Professional Journalists and the National Press Photographers Association.
The editorial and advertising materials published by the newspaper, including any opinions expressed, are the responsibility of the student publications staff. Under appropriate state and federal court decisions, these materials are free from prior restraint by virtue of the First Amendment o the U.S. Constitution. Accordingly, materials published, including any opinions expressed, should not be interpreted as the opinions of the L.A. Community College District, Pierce College, or any District or College officer or employee.

Specific guidelines providing for campus newspapers within the L.A. Community College District may be found in LACCD Board rules No. 9703 and No. 9704.

The weekly campus newspaper, The Roundup, is published on eleven Wednesdays during each of the Fall and Spring semesters. It is available online at www.therounduponline.net

The campus magazine, The $B U L L$, is published semi-annually as resources permit. Both The Roundup and The BULL are distributed free to all students.

## Associated Students Organization (ASO)

The students of Pierce govern their own affairs through the organization known as the Associated Students Organization
(A.S.O.). Each student who enrolls at the college may become a member. The Associated Students Organization provides a framework for many college student activities. Through active participation in student government and clubs, the student renders service, increases social and cultural awareness, improves leadership abilities, and creates a close association with other students. Students are encouraged to serve on campus and A.S.O. committees. For information visit the Student Activities Office in the Campus Center.

## Qualifications for ASO Officers <br> (Administrative Regulation E-22)

Administrative Regulation E-22 pertains to all officers of the Associated Students Organization (ASO).
Administrative Regulation E-22 does not apply to clubs, club representatives, ASO special committees and all-college committees, and student trustee.

1. The following standards governing candidate and officer eligibility for appointed and elected Associated Student Organization offices (ASO), and Heads of Standing Committees, as defined by ASO constitution and by laws, must be met:
A. The candidate or officer must be a currently paid member of the ASO, at the college where the election is being held, and have successfully completed no more than 80 degreeapplicable units in the District.
B. The candidate may seek only one campus office within the District;
C. The candidate or officer must have and maintain a cumulative and current GPA of at least 2.0 in units completed at all the colleges in the District during the semesters in which the student government office is applied for and held. Current means the most recently completed semester;
D. The candidate or officer must not be on academic or progress probation. Progress probation is defined as having recorded grade entries of "W" (withdrawal), "I" (Incomplete), "NC" (No Credit) for fifty percent or more of all units in which a student has enrolled. Academic probation results when a student fails to maintain an accumulated grade point average of 2.0.
E. The candidate or officer must be actively enrolled in, and must successfully complete six (6) units by the end of the semester. Students falling below this requirement must forfeit their office. Candidates may be enrolled in more than one college in the District, but the candidate must be currently enrolled in a minimum of six (6) units at the college where the candidate is seeking office. Officers must maintain that enrollment at the college where the office is held.
F. Exceptions to the maximum units requirement in Section 1 A of this regulation may be made for students enrolled in a college degree, certificate or transfer program where the combination of program requirements and prerequisites may result in the student exceeding the 80 degreeapplicable unit limit.
Exceptions will be decided by the College President based upon recommendations made by the Chief Student Services Officer.
In order to be considered for an exemption a student who exceeds the requisite 80 degree-applicable unit maximum must satisfy at least one of the following conditions:

- The requirements of the student's declared associate degree major, certificate and/or transfer objective, as
specified in the college catalog, caused the student to enroll in courses that exceeded the 80 degree-applicable unit maximum.
- Program prerequisites, as specified in the college catalog, caused the student to exceed the 80 degreeapplicable unit maximum.

2. A candidate or officer is ineligible for ASO office:
A. If he/she has served more than four (4) semesters in any one (1) or more student government elected or appointed offices in the District.
B. If a student, who exceeded the unit maximum and was granted an exception, fails to enroll in courses that are specifically required for associate degree, certificate or transfer requirements as specified in the college catalog.
3. An officer may serve a fifth semester if eligible at the time of assuming office with the approval of the College President or designee (e.g., has served three semesters and is a candidate for an office with a one-year term).
4. The Chief Student Services Officer and/or designee will verify a candidate or officer's eligibility. If the student disagrees with the findings, he/she can appeal through the student grievance procedures. Officers not adhering to the standards for office will be required to forfeit their positions.
5. Candidates or officers must comply with the minimum standards of the District Code of Conduct. Failure to comply will result in forfeiture of the position (Board Rule Article VIII, 9801-9804).
6. Any candidate or officer with a disability may request an accommodation for the requirements of section I (E):
A. The approval of the accommodation for candidates with a disability will be made in individual instances on a case-bycase basis by the Chief Student Services Officer in consultation with the college Compliance Officer and/or the Director of the Disabled Student Program and Service (DSP\&S) in compliance with Section 504 of the Rehabilitation Act and Title II of the Americans with Disabilities, as appropriate.
B. Qualification for an accommodation will be based on the impact of the disability on the candidate's/officer's ability to take 6 units. However, a candidate or officer must be enrolled in a minimum of five units throughout his/her term in accordance with Education Code section 76071.
C. Procedures for requesting an accommodation under E-22:

- Candidates/officers must complete a written request form for accommodation available in the college's Student Services Office, and return it to the Chief Student Services Officer.
- Each candidate or officer must present written documentation verifying the disability. Acceptable documentation includes, but is not limited to, written notice from the college DSP\&S office or a certified or licensed professional, such as a doctor, psychologist, rehabilitation counselor, occupational or physical therapist.

7. Students enrolled in college credit and/or non-credit courses are eligible to vote at the college of attendance. Enrollment in Community Services classes does not meet this requirement.
8. Individual colleges may set forth standards for office in their ASO constitutions which are higher, but not lower, than those listed above with the exception of the accommodations listed in Section VI above.

## Student Clubs \& Organizations

Approximately 20 campus clubs and organizations have open membership to students who are members of the Associated Students Organization. Service clubs, special interest clubs, departmentrelated organizations, and religious clubs offer a variety of opportunities for student involvement.

The club program is coordinated by the Associated Students Organization through the Club Council. Clubs which have been active at Pierce during the past semesters include: Alpha Gamma Sigma; Animal Health Technology; Armenian Students Association; Bible Fellowship Club; California Nursing Students Association; Club Latino United for Education; Dance Club; International Students Club; Kabataang Filipino; Muslim Student Association; Parents Club; Phi Theta Kappa; Pierce Hillel; Pre-Vet Club; Sign Language Club; and United African-American Student Association.
Information on clubs is available in the Associated Students Office or Student Activities Office in the Campus Center.

## Student Trustee Election Procedure

The Board of Trustes of the Los Angeles Community College District has established that within its membership there shall be one nonvoting student Board member. The term of office of the Student Board member shall be one year commencing on June 1 and ending on May 31.

## Qualifications:

## Candidates for Student Trustee must:

1. Be currently enrolled and in good standing at one or more colleges in the District.
2. Be enrolled in 6 units. The student must maintain eligibility during his/her term of office. If eligibility is not maintained, forfeiture of office will be required.
3. Have completed a minimum of 12 units and a maximum of 80 transferable units of college work which includes a minimum of 12 units completed within the Los Angeles Community College District.
Exceptions on the maximum units requirement will be made for students enrolled in recognized Los Angeles Community College District programs where the combination of program units and prerequisites may exceed the 80 transferable units limit.
Exceptions will be decided upon by the Chancellor or designee based upon recommendations made by the Chief Student Services Officer or designee at the student's primary college of attendance.
In order to be considered for an exemption, a student, who exceeds the requisite 80 transferable unit maximum, must satisfy at least one of the following conditions:
4. The requirements of the student's declared associate degree major, certificate and/or transfer objective, as specified in the catalog at the student's primary college of attendance, caused the student to enroll in courses that exceeded the 80 transferable unit maximum.
5. Program prerequisites, as specified in the catalog at student's primary college of attendance, caused the student to exceed the 80 transferable unit maximum.
6. A returning student, who has already completed a college degree or certificate, and is enrolled in courses that are specifically required for the student's declared certificate, associate degree or transfer objective, as specified in the catalog at student's primary college of attendance.
For further information, contact the Student Activities office in the Campus Center.

## Associate Degree Requirements

Three Pathways To The Associate Degree

1. Transfer Option:
for students planning to transfer to a California State University or University of California campus
2. Occupational/Vocational Option:
for students planning to complete an occupational/vocational degree at Pierce College
3. General Studies Option:
for students planning to complete a degree at Pierce College but who do not intend to transfer to a California public university or complete an occupational/vocational degree

## All Three Have The Following Common Requirements

1. Unit Requirement:

A minimum of 60 units in degree applicable courses.
2. General Education Requirement:

The general education requirement is satisfied within the design of each option plan.
3. Major Requirement:

The major requirement is satisfied within the design of each option plan.
4. Scholarship Requirement:

A minimum C (2.0) cumulative grade point average in all courses used toward the degree.
5. Residency Requirement:

A minimum of 12 of the units used toward the degree must be completed in residence at Pierce College.
6. Competency Requirement:

You must demonstrate competence in reading, written expression and mathematics.

- Completion of one of the following courses with a grade of C or better meets the reading and written expression requirement:
- English 28 or 101
- Journalism 101
- Competency may be met through credit-by-examination. Please see a counselor for details.
- Completion of one of the following courses with a grade of C or better meets the math competency requirement:
- Math 115, 146
- Any Math or Statistics course with a prerequisite of Math 115 or higher
- Electronics 10, 12
- Competency may also be met by achieving a satisfactory score on the Math Competency Exam

7. Procedure for receiving the degree:

You must file a petition for the degree in the Graduation Office. Please check the Schedule of Classes for deadlines. If you have completed coursework at other schools that you believe meets some of your degree requirements, you may petition for course substittion. Petitions are available in the Graduation Office. Please consult a counselor for guidance.

Students should choose one of the three options outlined on the following pages. Which option should you choose? It depends on your academic and career goals.

Meet with a counselor to determine which plan best meets your needs.

## Option 1: Transfer

Students planning to transfer to a California State University (CSU) or University of California (UC) campus and earn an Associate Degree must complete the following coursework. (If you plan to transfer to a private or an out-of-state college or university, see a counselor for details.)

Unit Requirement: 60 units - All courses and units applied to this option must be UC transferable if transferring to a UC and CSU transferable if transferring to a CSU.

General Education: Students planning to transfer to a California State University or University of California campus must satisfy the general education component of their transfer requirements by completing either the CSU General-Education Certified Plan or the IGETC (Intersegmental General-Education Transfer Curriculum). For a complete description of these plans, please consult the Transfer Information section of this catalog and visit the ASSIST website at www.assist.org.
Major Requirements: Some UC and CSU campuses require major preparation courses be completed before transfer. See a counselor and visit the ASSIST website at www.assist.org for details.

Electives: If your program of general education and major requirements does not total 60 units, select any UC transferable courses if transferring to a UC or CSU transferable courses if transferring to a CSU to meet the unit requirement.

Resources for Transfer Students


Pierce Transfer Center:
www.piercecollege.com/students/transfer/


California State University Information at CSU Mentor: www.csumentor.edu


University of California Information at: www.universityofcalifornia.edu/admissions


Community College/CSU/UC Transfer Course Agreements at Assist: www.assist.org

## Option 2: Occupational/Vocational (Formerly Plan B)

Students planning to earn an Associate Degree with an emphasis on occupational/vocational preparation must complete the following coursework. Students should consult with the Academic Advisor for their program and/or a counselor for details.

Unit Requirement: 60-64 degree applicable units depending on the educational program selected.
Major Requirements: Students must complete the requirements for their chosen occupational major. These requirements are listed in the Educational Programs section of this catalog.

Electives: If your program of general education and major requirements does not total 60 units, select any additional degree applicable courses to meet the unit requirement.

General Education Requirements: Students must complete 18 units from the following Option 2, General Education requirements:


## Coursework limitations to the above plan:

1. A student may not use more than two courses taught in any department to satisfy the general education requirements.
2. A student may not duplicate disciplines in selecting courses to meet the requirements in section D , for example, CAOT
3. A single course may be listed in more than one general education area but may only be counted once.

## Option 3: General Studies (Formerly Plan A)

Students planning to earn an Associate Degree but who do not intend to transfer or complete an occupational/vocational degree must complete the following coursework.
Unit Requirement: 60 degree applicable units
Major Requirements: These requirements are listed in the Educational Programs section of this catalog.
Electives: If your program of general education and major requirements does not total 60 units, select any additional degree applicable courses to meet the unit requirement.

General Education Requirements: Students must complete 30 units from the following Option 3, General Education requirements:
Section A: Natural Science - Select 3 units from the following:

| Anatomy 1 | Geog 1, 3, 15 |
| :--- | :--- |
| Anml Sc 511 | Geol 1, 2, 4, 6, 10, 11, 17, 22ABCD |
| Anthro 101, 111 | Meteor 3 |
| Astron 1, 2, 3 | Micro 1, 20 |
| Biology 3, 6, 7, 10, 11ABC, 12ABC, 18ABC, 39, | Oceano 1, 2, 10, 12, 14 |
| $\quad$ 40, 46, 121, 122, 123 | Phy Sci 1, 4, 14 |
| Chem 51, 60, 101, 102, 211, 212, 221 | Physics 6, 7, 12, 66, 67, 101, 102, 103 |
| Electron 2, 4A, 6A | Physiol 1, 8, 9 |
| Env Sci 1, 2, 7 | Plnt Sc 103, 711, 901, 910, 940, 950 <br> Psych 2, 73 |

Section B: Social and Behavioral Sciences - 9 units

1. Select 3 units from the following courses:

History $11,12,13,14,41,42,43,44,52$
Pol Sci 1, 19, 30
2. Select 3 units from the following courses: Addicst 15
Administration of Justice 1, 2, 4, 67
Anthro 102, 105, 106, 109, 132, 141 Bus 1, 5
Chicano Studies 2
Child Dev 1

Econ 1, 2, 10, 16, 30, 60
Env. Sci. 17
Geog 2, 7, 14, 21, 22, 31
History $3,4,5,6,8,11,12,13,14,15,20$, $21,27,30,39,40,41,42,43,44,52,86,87$ Journal 100
Law 3

Mgmt 31, 33
Plnt Sc 110
Pol Sci 1, 2, 7, 14, 19, 30, 37, 42, 43 Psych $1,3,6,11,12,13,14,16,17,18$, 32, 40, 41, 52, 66 Soc 1, 2, 3, 4, 8, 11, 13, 15, 21 28, 29, 37 Spanish 10, 16, 26 Speech 121, 122 Supv 6, 11
3. Select 3 additional units from numbers 1 or 2 above.

## Section C: Humanities - Select 3 units from the following:

ASL 1, 2, 3, 4,40
Anthro 104, 105, 121
Art 101, 102, 103, 105, 109, 111, 119, 137, 138, 139, 201, 202, $203,400,500,501,502,503,604,605,606,614,700,708 \mathrm{AB}$ Cinema 3, 18, 104
Dance 290, 710, 801, 802, 803, 804, 812, 814, 818, 860
English 102, 103, 127, 203, 204, 205, 206, 207, 208, 209, 210, 211,
$212,213,214,215,216,219,239,240,250,251,252,270$
French $1,2,3,4,5,6,8,10$
French $1,2,3,4,5,6,8,10$
History $1,2,7,31,43,44,86,87$
Human 1, 2, 3, 6, 11, 12, 13, 14, 30, 31, 60, 61, 89
Italian 1, 2, 3, 4, 5, 6, 8

Japan 1, 2, 3, 4, 8, 27
Ling 1
Music 101, 111, 112, 121, 122, 152, 181, 182, 183, 184, 201, $202,203,226,241,251,299,321,322,323,324,341$, $411,412,413,414,501,531,561,571,601,602,603$, $604,611,612,613,614,621,624,651,705,721,741$, 745, 755, 776, 777
Philos 1, 2, 12, 14, 15, 19, 20, 29, 30, 33, 35, 40, 41, 42 Photo 9, 10, 11, 27

## Soc 11

Spanish $1,2,3,4,5,6,8,9,11,12,15,21,22,25,26,27,65$ Theater 100, 110, 125, 265, 270, 271, 273, 300

Section D: Language and Rationality - 12 units

1. Select 3 units from the following courses:

English 28, 101, 102, 103
Journal 101, 108
CAOT 31, 32
2. Select 6 units from the following courses:

Acctg 1
CAOT 77
Co Sci 501, 506, 507, 530, 572, 575
Electron 10
Geog 31, 32, 33
GIS $31,32,33$
3. Select 3 additional units from numbers 1 or 2 above.

Math 115, 125, 146, 215, 227, 238, 240, $245,259,260,261,262,291$
Philos 5, 6, 7, 9
Psych 26, 66
Soc 4
Speech 101, 103, 104, 121, 122
Stat 1, 7
Supv 11

## Section E: Health and Physical Education Activity - 3 units minimum.

## Health 8, 9, 10, 11-2 units minimum

Physical Education: Activity Course chosen from Phys Ed 100 through 500 or Phys Ed 90A, 90B, 91, 96, 665, 666, 675, 684, 690, 702, or Dance 101, 290, 410, 441, 452, 710, 801, $860-1$ unit minimum
Students who have served in the US Armed Services or have completed Police or Fire Department recruit academy training programs may be eligible to waive the Health and P.E. graduation requirements. Contact the Graduation Office for details.

## Coursework limitations to the above plan:

1. A student may not use more than two courses taught in any department to satisfy the general education requirements.
2. A student may not duplicate disciplines in selecting courses to meet the requirements in sections B and D.

For example, History 11 from B1 with History 3 from B2.
3. A single course may be listed in more than one general education area but may only be counted once.

## Department \& Program Organization

| Department \& Subjects | Chairperson(s) | Phone/Office | Department \& Subjects | Chairperson(s) | Phone/Office |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AGRICULTURE AND | Richard South | 719-6463 | LEARNING CENTER | Kathy Boddicker | 710-2938 |
| NATURAL RESOURCES |  | AS 4103A |  |  | TLC 1602 |
| Animal Science | Floral Design \& Management |  | Learning Skills | Computer Lab | Tutoring |
| Equine Science/Horse Science | General Agriculture |  |  | Florence Robin | 719-6409 |
| Horticulture \& Landscaping | Natural Resources Management Veterinary Science \& Technology |  | LIBRARY SCIENCE | Plorence Robin | LIBRARY |
| Pre-Veterinary Sciences |  |  |  |  |
|  <br> GEOGRAPHICAL SCIENCES | Philip Stein | 710-4104 |  | LIFE SCIENCES | James Rikel | $\begin{aligned} & \hline \text { 719-6465 } \\ & \text { LS } 1715 \end{aligned}$ |
|  |  | FO 2905 |  |  |  |  |
| Anthropology | Archeology <br> Linguistics | Geography <br> Meteorology | Anatomy <br> Microbiology <br> Physiology | Biology | ne Biology) |  |
| Geographic Information Systems |  |  |  | Oceanography (Marine Biology) |  |  |
| ART | David Oshima | 719-6475 <br> ART 3303D | MATHEMATICS | Bob Martinez | 719-6468 <br> MATH $1409 E$ |  |
| Architecture | Art History <br> Fine Art Sculpture 3-D Animation | Ceramics <br> Graphic Design <br> Web Design <br> Digital Imaging |  |  |  |  |
| Architectural History |  |  | MEDIA ARTS | Rob O'Neil | 710-2962VLGE 8212 |  |
| Drawing |  |  |  |  |  |  |
| Painting |  |  | Broadcasting <br> Photography | Cinema Journalism |  |  |
| Multimedia |  |  |  | Public Relations |  |  |
| BUSINESS ADMINISTRATION | David Braun | 719-6479 BUS 3213E | MODERN LANGUAGES | Damiano Marano | $\begin{aligned} & \text { 710-4319 } \\ & \text { FO } 2706 \end{aligned}$ |  |
|  |  |  |  |  |  |  |
| Accounting <br> Finance <br> International Business | Business <br> Management <br> Real Estate | Business Law <br> Marketing <br> Supervision | American Sign Language Italian | French <br> Japanese |  |  |
|  |  |  |  |  | anish |  |
|  |  |  | MUSIC | Stephen Piazza | 719-6476 MUS 3416A |  |
| CHEMISTRY | Isidore Goodman | an 719-6464 |  |  |  |  |
|  |  | CHEM 0804 | NURSING | Christi Hamilton | 719-6477 <br> VLGE 8203 |  |
| CHILD DEVELOPMENT | Joleen Voss- <br> Rodriguez | 719-6402 |  |  |  |  |
|  |  | BEH 1306E | Registered Nursing (ADN) <br> LVN to RN |  |  |  |
| COMPUTER APPLICATIONS \& OFFICE TECHNOLOGIES | Lyn Clark | 710-4244 |  |  |  |  |
|  |  | BUS 3210B | P.A.C.E. | Art Gillis | $\begin{aligned} & \hline 710-2890 \\ & \text { FO } 2800 \end{aligned}$ |  |
| Administrative Professional Business Communication Computer Applications Computerized Accounting Desktop Publishing | General Administrative |  |  |  |  |  |
|  | Internet |  |  | Nicholas Habib | $\begin{aligned} & \text { 710-4371 } \\ & \text { FO } 2904 \end{aligned}$ |  |
|  | Legal Office ProceduresOffice Procedures |  | PHILOSOPHY/ SOCIOLOGY |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Office ProceduresWeb Site Construction |  | Philosophy | Sociology |  |  |
| COMPUTER SCIENCE \& INFORMATION TECHNOLOGY | Lynne O'Hanlon | 710-2933 | PHYSICAL EDUCATION ATHIETICS | William Norton Bob Lofrano <br> Health Education | $\begin{aligned} & \hline 719-6473 \\ & 719-6421 \end{aligned}$ |  |
|  |  | COSC 1503 |  |  |  |  |
| Computer and Network Technology Programming for Business Programming for Computer Science |  |  | Athletics <br> Physical Education |  |  |  |
|  |  |  |  |  |  |  |  |  |
| COOPERATIVE EDUCATION | Ron Smetzer | $\begin{aligned} & \hline 710-4291 \\ & \text { VLGE } 8200 \end{aligned}$ | PHYSICS \& PLANETARY SCIENCES | William Duxler | 710-2931 <br> PHYS 0902 |  |
|  |  |  |  |  |  |  |
| COUNSELING | Rudy Dompe | $\begin{aligned} & \text { 719-6440 } \\ & \text { ADM } 1000 \end{aligned}$ | Astronomy Geology Physical Science | Environmental Science <br> Oceanography <br> Physics |  |  |
|  |  |  |  |  |  |  |  |
| Personal Development |  |  |  |  |  |  |  |
| ENGLISH | Donna Accardo | $\begin{aligned} & \hline 710-2879 \\ & \text { FO } 2501 \end{aligned}$ | POLITICAL SCIENCE - ECONOMICS | Sharon Levick | $\begin{aligned} & \hline 710-4387 \\ & \text { FO } 3007 \end{aligned}$ |  |
| ENGLISH |  |  |  |  |  |  |
| English | English as a Second Language |  | Chicano Studies Economics Political Science | Criminal Justice Law |  |  |
| HISTORY/HUMANITIES | Eugene Larson | $\begin{aligned} & \text { 710-4305 } \\ & \text { FO } 3101 \end{aligned}$ |  |  |  |  |
|  |  |  | PSYCHOLOGY | Edward Mazeika | 710-2891 <br> BEH 1306C |  |
| HONORS PROGRAM | Barbara Anderson | $\begin{array}{ll} 719-6485 \\ \text { FO } 2800 \end{array}$ |  |  |  |  |
|  |  |  | Addiction Studies Education | Psychology Statistics |  |  |
| INDUSTRIAL TECHNOLOGY | Ron Smetzer | 710-4259 |  |  |  |  |
|  |  | AT 3803 | SERVICE LEARNING | Jim Dawson | 710-2588 |  |
| Automotive Service Technology Electronics <br> Machine Shop-CNC | Drafting, Mechanical Engineering, Mechanical Welding |  | SPECIAL EDUCATION | Norm Crozer | $\begin{aligned} & \text { 719-6430 } \\ & \text { ADM } 1024 \end{aligned}$ |  |
|  |  |  |  |  |  |  |  |
|  |  |  | SPEECH COMMUNICATION | Barbara Anderson | $\begin{aligned} & 710-2524 \\ & \text { FO } 2704 \end{aligned}$ |  |
|  |  |  |  |  |  |  |  |
|  |  |  | THEATER ARTS \& DANCE | Gene Putnam | 710-2902 |  |
|  |  |  | Dance | Theater | PAB 3539 |  |

## Educational Programs

## Degree and Certificate Programs

## Associate Degree Programs

Pierce offers a wide variety of programs which are listed on the following pages. Please refer to the previous section, Associate Degree Requirements for a description of our degree options. Students should consult with a counselor to ensure that they are completing the coursework that best meets their educational goal.

## Occupational Certificate Programs (C)

Pierce has many occupational certificate programs of 18 units or more that give students training in specific job skills. A grade of C or better is required in each course and at least $50 \%$ of the units required for the certificate must be completed in residence at Pierce College.

## Certificate of Achievement Programs (CA)

Certificates of Achievement document a student's achievement of specific skills or coursework within a discipline. These certificates require fewer than 18 units of coursework. A grade of C or better is required in each course. At least $50 \%$ of the units required for the certificate must be completed in residence at Pierce College.

|  | Degree | Certificate |
| :--- | :---: | :---: |
| Addiction Studies | AA | C |
| Agriculture |  |  |
| Agriculture Business | AS |  |
| Equine Science (Mules) | AS | C |
| Floral Design and Management | AS | C |
| General Agriculture | AS | C |
| Horse Science |  |  |
| Horticulture | AS |  |
| General Horticulture | AS |  |
| Greenhouse and Nursery Industry | AS |  |
| Landscape Installation and | AS |  |
| Landscape Planning and Design |  | CA |
| Basic Gardening (Basic) |  | C |
| Basic Gardening (Advanced) | Candscape Technician (Basic) |  |
| Landscape Technician (Advanced) |  | C |
| Professional Gardening |  | C |
| Natural Resources Management | AS |  |
| Pre-Veterinary Medicine | AS |  |
| Veterinary Technology | AS |  |


| American Sign Language (Interpreting) | AA |  |
| :---: | :---: | :---: |
| Anatomy \& Physiology |  | CA |
| Anthropology |  | CA |
| Archaeology |  | CA |
| Architecture |  |  |
| Architecture Technology | AA | C |
| Art |  |  |
| Fine Arts | AA |  |
| Graphic Design | AA | C |
| Graphic Design for the Web |  | CA |
| Biology |  |  |
| Biotechnology |  | CA |
| Field Biology |  | CA |
| General Biology |  | CA |
| Marine Biology |  | CA |
| Microbiology |  | CA |
| Business Administration |  |  |
| Accounting | AA |  |
| Payroll Accounting |  | CA |
| Small Business Accounting |  | CA |
| Tax Preparation |  | CA |
| Finance |  | CA |
| General Business | AA | CA |
| International Business |  | C |
| International Trade |  | CA |
| Management and Supervision | AA |  |
| Management |  | CA |
| Retail Management |  | C |
| Small Business Entrepreneur |  | CA |
| Marketing | AA | CA |
| Child Development | AA |  |
| Preschool Teacher |  | C |
| Associate Teacher |  | C |
| Preschool Certificate (Cert. A) |  | CA |
| Director Preschool (Cert. B) |  | CA |
| Infant Care Teacher (Cert. C) |  | CA |
| School Age Programs Teacher (Cert. D) |  | CA |
| Special Needs Certificate (Cert. E) |  | CA |
| Cinema |  | CA |
| Computer Applications \& Office Technologies |  |  |
| Administrative Professional | AA | C |
| General Administrative | AA | C |
| Legal Office Procedures | AA | C |
| Advanced Computer Applications |  | C |
| Basic Computer Applications |  | CA |
| Basic Computerized Accounting |  | CA |
| Basic Internet |  | CA |


| Basic Word Processing: Microsoft Word |  | CA |
| :---: | :---: | :---: |
| Desktop Publishing |  | CA |
| Legal Office Skills |  | CA |
| Office Clerical |  | CA |
| Office Communication |  | CA |
| Web Site Construction and Maintenance |  | CA |
| Computer Science |  |  |
| Programming for Business | AA | C |
| Personal Computer Application Specialist |  | CA |
| Database Programming Specialist |  | CA |
| Programming for Computer Science | AS | C |
| Computer and Network Technology | AS |  |
| Personal Computer Service Technology |  | CA |
| Network Technology |  | CA |
| Routing Technology |  | CA |
| Website Development |  | CA |
| Criminal Justice | AA |  |
| Dance |  | CA |
| Visual and Performing Arts through Dance |  | CA |
| Dance |  | CA |
| Electronics | AS |  |
| Digital Option |  | C |
| Communications Option |  | C |
| Analog Option |  | C |
| English as a Second Language |  | CA |
| French | AA |  |
| Geographic Information Systems (GIS) |  | CA |
| Geography |  | CA |
| Geology |  | CA |
| Industrial Technology |  |  |
| Automotive Service Technology | AS | C |
| Automotive Light Service Tech |  | CA |
| Automotive Emission Specialist |  | CA |
| Automotive Performance Applications |  | CA |
| Automotive Powertrain Specialist |  | CA |
| Drafting - Mechanical | AA |  |
| Basic Drafting - Mechanical |  | CA |
| Advanced Drafting - Mechanical |  | CA |
| Numerical Control Programming | AS | C |
| Machine Shop Technology |  | CA |
| CNC Operator |  | CA |
| CNC Programming |  | CA |
| Basic Welding |  | CA |
| Advanced Welding |  | CA |
| Italian | AA |  |
| Journalism | AA | CA |


| Latin American Studies | AA | $C A$ |
| :--- | :--- | :---: |
| Mexican Studies |  | $C A$ |
| Liberal Arts and Science |  |  |
| Mathematics | AA |  |
| Meteorology | AA |  |
| Music | AA |  |
| Electronic Music | AA | $C A$ |
| Nursing |  | $C A$ |
| Photojournalism |  | $C A$ |
| Physical Education | AS |  |
| Lifetime Fitness | AA | $C A$ |
| Physics |  | $C A$ |
| Pre-Engineering | $C A$ |  |
| Psychology |  | $C A$ |
| Spanish | AA |  |
| Hispanic Studies | AA |  |
| Spanish Translation | AA |  |
| Speech Communication |  | $C A$ |
| Communication Studies |  |  |
| Theater | Costume Option |  |
| Technical Theater Option |  |  |
| Women's Studies |  |  |

## Student Responsibility

The suggested sequence of courses in each program is the most desirable to follow; but the order may be changed, if necessary, as long as prerequisites are met. It is the student's responsibility to meet course prerequisites and graduation requirements. The general education and physical education requirements for the Associate Degrees are listed in the "Associate Degree Requirements" section of this catalog.

Students planning to transfer to bachelor degree program should consult a counselor to verify requirements.

## Addiction Studies

The Addiction Studies Program is designed to provide education and training in the knowledge, skills, and attitudes, (TAP 21), necessary for persons to function effectively and efficiently at all professional hire levels and in all vocational areas and settings in the field of addictive diseases and life style disorders - whether in prevention, intervention, treatment, or recovery consistent with identified nationally recognized core skills, competencies, standards, ethics and values required in the "professional practice of addiction counseling."
The Addiction Studies Program meets and exceeds official education requirements of the California Office of Alcohol and Drug Programs, and of all certifying or credentialing organizations.
The Addiction Studies Program is accredited by the California Association of Alcohol and Drug Educators (CAADE).
Each "advanced counseling skills" three-unit course provides 54 hours of "officially approved" Continuing Education for licensed MFT/LCSW, RN, and certified CATC, CADC I \& II, NCAC/MAC, and is required by the California Office of Alcohol and Drug Program regulations to be accepted by "all certifying organizations." Advanced counseling skills courses: AS11, 14, 15, $16,17,18,19,20,21,22$, and 23 .

## Associate of Arts Degree with a Major in Addiction Studies

Students may obtain an Associate of Arts degree in Addiction Studies by completing the courses shown in the following certificate program AND by satisfying all the requirements shown in the college catalog under Associate Degree Requirements, Option 2.

## Certificate Program

| CORE COURSES |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| Addicst 1 | Understanding Addiction and Counseling | 3 |
| Addicst 2 | Drugs In Perspective: |  |
|  | Pharmacology and Physiology | 3 |
| Addicst 7 | Addiction Treatment And Recovery | 3 |
| SKILLS COURSES |  |  |
|  |  | UNITS |
| Addicst 4 | Addiction Counselor Training | 3 |
| Addicst 5 | Group Skills For Addiction Counselors | 3 |
| Addicst 10 | Addiction And The Family | 3 |
| FIELD WORK COURSE |  |  |
|  |  | UNITS |
| Addicst 9 | Field Work For Addiction Personnel | 3 |
| ELECTIVE COURSES |  |  |
| Choose three of the following |  |  |
| Addicst 11 | Drid | UNITS |
| Addicst 13 | Addictive Diseases \& Lifestyle Disorders |  |
| Addicst 14 | Addiction And Theories Of | 3 |
|  | Human Development |  |
| ${ }^{1}$ Addicst 15 | Sociological Aspects Of Addiction | 3 |
| Addicst 16 | Continuing Recovery: Specific Strategies | 3 |
|  | And Basic Skills |  |
| Addicst 17 | Women And Addiction | 3 |
| Addicst 18 | Addiction And Eating Disorders | 3 |
| Addicst 19 | Alcohol And Drug Education And Preven | on 3 |
| Addicst 20 | Domestic Violence Counselor | 3 |
| Addicst 21 | Problem Gambling Counselor Training | 3 |
| Addicst 22 | Prevention Specialist Training | 3 |
| Addicst 23 | Batterer's Intervention Facilitator Training | 3 |
| Plus one course in Child Development, Psychology, Sociology, |  |  |
| Anthropology, or Addiction Studies 15 |  |  |
| Plus one course in History or Political Science. |  |  |
| ${ }^{1}$ Also meets General Education Requirements, Option 2 (formerly Plan B). |  |  |

## Agriculture - Business

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree
This program is designed to offer students the opportunity to earn a degree in Agriculture-Business.

| AREA A - COURSES FROM THE BUSINESS DEPARTMENT |  |
| :---: | :---: |
|  | UNITS |
| Accounting 1 | 5 |
| Business 1 | 3 |
| Marketing 1 | 3 |
| Management 13 | 3 |
| Marketing 21 | 3 |
| Computer Applications (CAOT) | 3 |
| Finance 8 | 3 |

AREA B - COURSES FROM THE AGRICULTURE DEPARTMENT
Any 23 units from the Agriculture Department. 23

AREA C - ELECTIVES
Any courses approved by either department chairs of Agriculture or Business 6

## Agriculture - Equine Science

## Certificate of Achievement - Mule Handling and Management

## REQUIRED COURSES

| COURSES |  |  |
| :--- | :--- | :---: |
| AnITS |  |  |
| Animal Sci 620 | Basic Equitation | 1 |
| Animal Sci 621 | Horseback Riding Lab | 1 |
| Animal Sci 611 | Farrier Science | 2 |
| Animal Sci 645 | Equine IIssues (Modules D \& E) | 2 |
| Equine Sci 680 | Basic Mule Principles | 2 |
| Equine Sci 681 | Advanced Mule Handling | 2 |
| Equine Sci $685^{*}$ | Field Work in Mule Handling | 6 |

It is suggested, but not required, that students take Business 1 (Introduction to Business) and/or Management 13 (Small Business Management) to enhance the value of this certificate.
*This course, designed to consist of six 1-unit modules, is being developed and is not yet offered.

Advance your career with an occupational/vocational degree. See Associate Degree Option 2 on page 49.

## Agriculture Floral Design And Management

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program Is designed to prepare a person as a floral designer, flower shop manager or owner. The program has been developed through an advisory committee of floral designers, cut flower business persons, and Pierce College faculty.

## AREA A - CORE PROGRAM

*Plant Sci 701 Retail Floral Design and Practices I *Plant Sci $702 \quad$ Retail Floral Design and Practices I UNITS Retail Floral Design and Practices IIT 2 $\begin{array}{lll}\text { *Plant Sci 704 Advanced Retail Floral Design and Practices } 2 \\ \text { Plant Sci 708ABC Floristry Projects } & 6\end{array}$
*These courses must be taken in sequence.

## AREA B - MAJOR ELECTIVE

Students select related courses approved by the department. Suggested courses include, but are not limited to the following: Acctg 1, Plant Sci 711 or 712, 756, 760-762, 764, Art 201, 501, Bus 5, Mgmt 13. 28

## AREA C - GENERAL EDUCATION

Courses selected from College Catalog to meet 18 degree requirements.
See Associate Degree Requirements, Option 2

## Certificate Program

This program teaches students the flowers and plants in Southern California used primarily in the florist trade. In laboratory work the student learns corsage making, flower arrangements, funeral offerings, and the use of plastic flowers.
Lectures include shop management, buying, and salesmanship. Upon completion of the certificate program, the student is qualified to be employed in a flower shop.

## REQUIRED COURSES

## UNITS

*Plant Sci701 Retail Floral Design and Practices I 2
*Plant Sci 702 Retail Floral Design and Practices II 2
*Plant Sci 703 Retail Floral Design and Practices III
*Plant Sci 704 Advanced Retail Floral Design and Practices 2
Plant Sci 708ABC Floristry Projects
*These courses must be taken in sequence.

## ELECTIVES

Students select related courses approved by the
Students select related courses approved by the
department. Suggested courses include, but are no
limited to the following: Acctg 1, Animal Sci 209,
Plant Sci 711 or 712, 756, 760-762, 764, Art 201, 501,
Bus 5, Mgmt 13

## Agriculture General Agriculture

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program is designed to give students a broad background to prepare them for many different occupations in the field of agriculture and agricultural business.

| AREA A - REQUIRED MAJOR CLASSES |  |  |
| :--- | :--- | :---: |
|  |  | UNITS |
| Plant Sci 103 | Introduction to Soils | 3 |
| Animal Sci 501 | Principles of Animal Science | 3 |
| Plant Sci 714 | Principles of Horticulture | 3 |
| Plant Sci 901 | Natural Resources Conservation | 3 |
| ANY | 100 Series Class | 3 |
| ANY | 500 Series Class | 3 |
| ANY | 600 Series Class | 3 |
| ANY | 700 Series Class | 3 |
| ANY | 800 Series Class | 3 |
| Co Sci 530 | Microcomputer Application Software | 3 |

AREA B - MAJOR ELECTIVES
Additional classes should be selected from any
Agriculture Department courses.
AREA C - GENERAL EDUCATION
Courses selected from College Catalog to meet degree requirements.

See Associate Degree Requirements, Option 2.

## Certificate Program

| Plant Sci 103 | Introduction to Soils |
| :--- | :--- |
| Animal Sci 501 | Principles of Animal Science |
| Plant Sci 714 | Principles of Horticulture |
| ANY | 500 Series Classes |
| ANY | 600 Series Classes |
| ANY | 700 Series Classes |
| ANY | 800 Series Classes |
| ANY | Business Classes |
| Co Sci 530 | Microcomputer Application Software | 3

3
Plant Sci 714 Principles of Horticulture
ANY 500 Series Classes
ANY
ANY
Co Sci 530
Microcomputer Application Software

## Agriculture - Horse Science

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program is designed to prepare students for a variety of jobs in the horse industry and is molded around a core of horse science, agriculture, and general education courses. Extensive practical experience and field trips to many horse facilities in and near Los Angeles County complement the academic portion of the program.

AREA A - CORE COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Plant Sci 100 | Introduction to Soils | 3 |
| Animal Sci 601 | Horse Production | 3 |
| Animal Sci 602 | Horse Husbandry | 3 |


| AREA B - REQUIRED MAJOR |  |  |
| :---: | :--- | :---: |
| Animal Sci 501 | Principles of Animal Science | 3 |
| Animal Sci 505 | Animal Nutrition | 3 |
| Animal Sci 510 | Animal Health and Disease Control | 3 |
| 1Animal Sci 511 | Anatomy and Physiology of Animals | 3 |
| Animal Sci 603 | Equine Management Techniques | 10 |
| Animal Sci 11 | Farrier Science | 2 |
| Animal Sci 620 | Basic Equitation | 1 |
| Animal Sci 621 | Horseback Riding Laboratory | 1 |
| Animal Sci 630 | Beginning Equine Training | 2 |
| Animal Sci 631 | Advanced Equine Training | 2 |
| Animal Sci 650 | Equine Health and First Aid | 2 |

## AREA C - MAJOR ELECTIVES

Select from any of the Agriculture Department
$100,200,300,500$ or 600 series courses.

AREA D - GENERAL EDUCATION
Courses selected from College Catalog to meet
degree requirements.
See Associate Degree Requirements, Option 2.

## Certificate Program

|  |  | UNITS |
| :--- | :--- | :---: |
| Animal Sci 501 | Principles of Animal Science | 3 |
| Animal Sci 500 | Animal Nutrition | 3 |
| Animal Sci 510 | Animal Health and Disease Control | 3 |
| Animal Sci 511 | Anatomy and Physiology of Animals | 3 |
| Animal Sci 601 | Horse Production | 3 |
| Animal Sci 602 | Horse Husbandry | 3 |
| Animal Sci 620 | Basic Equitation | 1 |
| Animal Sci 621 | Horseback Riding Laboratory | 1 |
| Animal Sci 630 | Beginning Equine Training | 2 |
| ANY | Agriculture Department | 6 |

ANY Agriculture Department 100,500 or 600 series courses
${ }^{1}$ Meets General Education Requirements, Option 2, Section A.

## Agriculture - Horticulture

## HORTICULTURE - GENERAL

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

| AREA A - CORE PROGRAM |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| ${ }^{1}$ Plant Sci 103 | Introduction to Soils | 3 |
| ${ }^{1}$ Plant Sci 711 | Botany for Horticulture | 4 |
| Plant Sci 714 | Principles of Horticulture | 3 |
| Plant Sci 800 | Plant Identification and Use I | 3 |
| Plant Sci 840 | Introduction to Pest Management | 3 |
| Plant Sci 896ABC Horticulture Projects ABC |  | 1-6 |
| AREA B - REQUIRED COURSES |  |  |
|  |  | UNITS |
| Plant Sci 716 | Arboriculture I (Care of Trees and Shrubs) | 1 |
| Plant Sci 742A | Practicum in Horticulture A | 1 |
| Plant Sci 756 | Greenhouse Plant Production | 3 |
|  | or |  |
| Plant Sci 757 | Plant Propagation | 3 |
| Plant Sci 760 | Indoor Plant Care and Maintenance I | 1 |
| Plant Sci 808 | Residential Landscape Design | 3 |
| Plant Sci 812 | Landscape Installation and |  |
|  | Maintenance I | 3 |

## AREA C - MAJOR ELECTIVES

Select from Plant Science 700 or 800 series courses UNITS or other courses as approved by the Department.

AREA D - GENERAL EDUCATION
Courses selected from College Catalog to meet UNITS 15
degree requirements.
See Associate Degree Requirements, Option 2.
${ }^{1}$ Meets General Education Requirements, Option 2, Section A.

## HORTICULTURE - GREENHOUSE AND NURSERY INDUSTRY

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
AREA A - CORE PROGRAM

| - CORE PROGRAM |  |  |
| :--- | :--- | :---: |
|  | UNITS |  |
| ${ }^{\text {1 Plant Sci } 103}$ | Introduction to Soils | 3 |
| 1Plant Sci 711 | Botany for Horticulture | 4 |
| Plant Sci 714 | Principles of Horticulture | 3 |
| Plant Sci 800 | Plant Identification and Use I | 3 |
| Plant Sci 840 | Introduction to Pest Management | 3 |
| Plant Sci 896A-C | Horticulture Projects A-C | $1-6$ |

AREA B - REQUIRED COURSES

Plant Sci 742B Practicum in Horticulture B
Plant Sci 756 Greenhouse Plant Production
Plant Sci757 Plant Propagation
Plant Sci 760 Indoor Plant Care and Maintenance I
Plant Sci 808 Residential Landscape Design
Plant Sci 848 Training for Pest Control License
AREA C - MAJOR ELECTIVES
Select from Plant Science 700 or 800 series courses or 10 other courses as approved by the Department

AREA D - GENERAL EDUCATION
Courses selected from College Catalog to meet 15
degree requirements.
See Associate Degree Requirements, Option 2.
${ }^{1}$ Meets General Education Requirements, Option 2, Section A.

## HORTICULTURE - LANDSCAPE INSTALLATION AND MAINTENANCE INDUSTRY

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
AREA A - CORE PROGRAM
UNITS
3
4
3
3
3
$1-6$

## AREA B - REQUIRED COURSES

|  |  |  |
| :--- | :--- | :---: |
|  | UNITS |  |
| Plant Sci 716 | Arboriculture I (Care of Trees and Shrubs) | 1 |
| Plant Sci 722 | Care of Horticulture Equipment I | 1 |
| Plant Sci 808 | Residential Landscape Design | 3 |
| Plant Sci 812 | Landscape Installation and Maintenance I | 3 |
| Plant Sci 815 | Blueprint Reading and Cost Estimating | 2 |
| Plant Sci 818 | Basic Construction Techniques | 3 |
| Plant Sci 820 | Irrigation Design and Installation | 3 |
| Plant Sci 822 | Turf and Groundcover Management | 3 |
| Plant Sci 848 | Training for Pest Control License | 3 |

AREA C - MAJOR ELECTIVES
Select from Plant Science 700 or 800 series courses or 10 other courses as approved by Department.

AREA D - GENERAL EDUCATION

Courses selected from College Catalog to meet 15 degree requirements.
See Associate Degree Requirements, Option 2.
${ }^{1}$ Meets General Education Requirements, Option 2, Section A.

## HORTICULTURE -

LANDSCAPE PLANNING AND DESIGN

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
AREA A - CORE PROGRAM

|  | UNITS |
| :---: | :---: |
| ${ }^{1}$ Plant Sci 103 Introduction to Soils | 3 |
| ${ }^{1}$ Plant Sci 711 Botany for Horticulture | 4 |
| Plant Sci 714 Principles of Horticulture | 3 |
| Plant Sci 800 Plant Identification and Use I | 3 |
| Plant Sci 840 Introduction to Pest Management | 3 |
| Plant Sci 896ABC Horticulture Projects ABC | 1-6 |
| AREA B - REQUIRED COURSES |  |
|  | UNITS |
| Plant Sci 801 Plant Identification and Use II | 3 |
| Plant Sci 802 Plant Identification and Use III | 3 |
| Plant Sci 806 Landscape Planning and Design | 4 |
| Plant Sci $807 \quad \begin{aligned} & \text { Advanced Landscape Planning } \\ & \text { and Design }\end{aligned}$ | 4 |
| Plant Sci 812 Landscape Installation and |  |
| Maintenance I | 3 |
| Plant Sci 815 Blueprint Reading and Cost Estimating | 2 |
| Plant Sci 818 Basic Construction Techniques | 3 |
| Plant Sci 820 Irrigation Design and Installation | 3 |
| Plant Sci 822 Turf and Ground Cover Management | 3 |
| AREA C - MAJOR ELECTIVES |  |
|  | UNITS |
| Select from Plant Science 700 or 800 series courses or other courses as approved by the Department | 4 |
| AREA D - GENERAL EDUCATION |  |
|  | UNITS |
| Courses selected from College Catalog to meet degree requirements. | 15 |
| See Associate Degree Requirements, Option 2. |  |
| ${ }^{1}$ Meets General Education Requirements, Option 2, Section A. |  |

## HORTICULTURE

## Certificate Programs

These programs are designed to prepare a student for employment in the field of horticulture. Individuals are prepared for employment by various private companies in the horticulture industries, governmental agencies, or to become self-employed. These programs may also serve as continuing education for those already employed in some field of horticulture. Students with a casual interest in horticulture desiring to take classes for information and interest are also accepted. Select from Plant Sci 103, 700's \& 800's series courses or other courses approved by the department.

|  | UNITS |
| :--- | :---: |
| Certificate of Gardening (Basic) | 10 |
| Certificate of Gardening (Advanced) | 20 |
| Landscape Technician (Basic) | 30 |
| Landscape Technician (Advanced) | 40 |
| Professional Gardening Certificate | 50 |

## Agriculture -

## Pre-Veterinary Medicine

## Associate in Science Degree

Department Subject Advisor: Dr. Lee Shapiro

## PRE-VETERINARY MAJOR

The Pierce College Pre-Veterinary Program has articulation agreements with UC Davis School of Veterinary Medicine and several other colleges across the nation. This agreement allows our pre-veterinary students to apply directly into the graduate veterinary school after completing an AS degree and taking upper division genetics at another college/university. Work with licensed veterinarians is required for admission to Veterinary school, so that students understand the duties and responsibilities of a practitioner. The average student accepted into graduate veterinary schools complete between 2,000-4,000 hours of animal, veterinary and biomedical experience prior to being admitted. Experience should include work with large and small animals and a variety of species. Agriculture classes at Pierce College with corresponding laboratory sections are appropriate ways to gain experience even though many are not UC transferable for credit. We encourage pre-veterinary students to get involved in the laboratory classes with veterinary technology students.

| PRE-VETERINARY ACADEMIC TRAINING |  |  |
| :--- | :--- | :---: |
| AnSci 181 | Veterinary Field Work | 3 |
| AnSci 120² | Ethical Issues of Using Animals | 3 |
| AnSci 401 | Orientation to Veterinary Science | 1 |
| AnSci 501 | Principles of Animal Science | 3 |
| AnSci 505³ | Animal Nutrition | 3 |
| AnSci 511,512 | Animal Anatomy and Physiology | 4 |
|  | American Govt/History | 3 |
| Eng.101,102,103 | Humanities and Social Sciences | 6 |
| Biol 6 | General Biology 1 | 9 |
|  | (Prerequisite college chemistry with lab) | 5 |
| Biol 7 | General Biology 2 |  |
| Chem 101,102 | General Chemistry I and II | 5 |
| Chem 211,212 | Organic Chemistry I and II | 10 |
| Chem 221 | Biochemistry | 10 |
| Physics 6,7 | General Physics I and II | 5 |
| Physiology 1 | (Prerequisite Trigonometry) | 8 |
| Mintroduction to Human Physiology 1 | Introducion to Microbiology | 4 |
| Math 227 | Statistics | 5 |
|  |  | 4 |

## PRE-VETERINARY EXPERIENTIAL TRAINING

Choose a combination of courses so that actual laboratory/hands-on time will apply towards the experience.

|  |  | UNITS |
| :--- | :--- | :---: |
| AnSci 410/411 | Animal Nursing I/Laboratory | 3 |
| AnSci 420/421 | Clinical Procedures in | 3 |
|  | Animal Care I/Laboratory |  |
| AnSci 430//431 | Veterinary Clinical Pathology/Lab | 3 |
| AnSci 435/436 | Veterinary Radiography/Lab | 3 |
| AnSi 4514 | Large Animal Inursing Laboratory | 2 |
| AnSci 506 | Urban Farm An Health Techniques | 3 |
| AnSci $515 / 516$ | Applied Animal Reproduction/Lab | 3 |
| AnSci 530/531 | Poultry Production/Lab | 3 |
| AnSci 603 | Equine Management Techniques | 2 |
| AnSci 650 | Equine Health and First Aid | 2 |

The Pierce Agriculture Department also offers electives for those veterinary science students who wish to develop particular areas of interest or for anyone who wants to enhance his or her knowledge of animals.

## ELECTIVES (OPTIONAL)

|  |  |  |
| :--- | :--- | :---: |
| Animal Sci 450 | Introduction to Animal Facilitated Therapy | 1 |
| Animal Sci 460 | First Aid for Companion Animals | 2 |
| Animal Sci 466 | Avian Care and Husbandry | 1 |
| Animal Sci 596 | Agricultural Enterprise Projects | 10 |
| Animal Sci 601 | Horse Production | 3 |
| Animal Sci 602 | Horse Husbandry | 3 |
| Animal Sci 603 | Equine Management Techniques | 10 |
| Animal Sci 650 | Equine Health and First Aid | 2 |

${ }^{1}$ See Catalog, Associate Degree Requirements, Option 2
${ }^{2}$ Offered Spring semester of even numbered years only
${ }^{3}$ Offered Fall semester only
${ }^{4}$ Strongly recommended for all students

## Agriculture - <br> Veterinary Technology

## Associate in Science Degree

Department Subject Advisor: Elizabeth White
Earning an AS degree in Veterinary Technology from Pierce College qualifies a student to sit for the national and state board exams. The comprehensive scope of the Veterinary Technology major provides the student with the skills and knowledge necessary for employment as a Registered Veterinary Technician in many different capacities and settings.
The curriculum integrates lecture classes with hands-on lab classes and outside clinical experiences, and meets or exceeds all American Veterinary Medical Association standards. Students are given ample opportunity to work with a wide variety of domestic animals here on campus. The coursework is separated into three categories: prerequisites, general education and advanced classes. Prior to being permitted to enroll in advanced level classes, students must complete all prerequisites and submit an application to the RVT Program Director. Students must earn at least a " $C$ " in all categories of classes. The coursework can be completed in two years, (including summer sessions), but most students take longer to complete the program.

## VETERINARY TECHNOLOGY MAJOR

The Veterinary Technology Major is accredited by the American Veterinary Medical Association. Academic counseling is strongly recommended prior to starting the RVT program.

PREREOUISITE CLASSS FOR VETERINARY TECHNOLOGY MAJOR

|  |  | UNITS |
| :--- | :--- | :---: |
| Animal Sci 180 | Animal Care Experience | 2 |
| Animal Sci 181A | Field Work | 1 |
| Animal Sci 401 | Intro to Vet Tech | 1 |
| Animal Sci 501 | Principles of Animal Science | 3 |
| Animal Sci 510 | Animal Health \& Disease Control | 3 |
| Animal Sci 511/512 Anantomy/Physiology of Animals | 3 |  |
| Math 115 | Elementary Algebra | 5 |
| Biology 3 | Introduction to Biology | 4 |
| English 101 | College Reading \& Comprehension | 3 |

General Education Classes
Co Sci 531 or Personal Computer Application Software 3
CAOT 82 Microcomputer Software Survey 3
Chem $51 \quad$ Fundamentals of Chemistry 1
Micro 20 General Microbiology
Humanities General Microbiology

Health
*
Physical Ed
Social \&
*
UNITS
$\square$

Biolv 3 El ntroduction to Biology College Reading \& Comprehension

oral Science
*See Associate Degree Option 2 for Choices
ADVANCED VETERINARY TECHNOLOGY CLASSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Animal Sci 402 | Topics in Veterinary Technology | 2 |
| Animal Sci 410/411 | Small Animal Nursing I/Lab | 3 |
| Animal Sci 412/413 | Small Animal Nursing II/Lab | 3 |
| Animal Sci i20/421 | Clinical Procedures I/Lab | 3 |
| Animal Sci 4222/423 | Clinical Procedures I/Lab | 3 |
| Animal Sci 430/431 | Clinical Pathology//ab | 3 |
| Animal Sci 435/436 | Veterinary Radiography/Lab | 3 |
| Animal Sci 441 | Large Animal Nursing | 2 |
| Animal Sci 470 | Laboratory Animal Care | 2 |
| Animal Sci 480 | Clinical Experience for Vet Techs | 6 |

NOTE: Students enrolled in advanced level veterinary technology classes must participate in daily kennel duty, including weekends.

## American Sign Language / Interpreting Program

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program is designed to prepare for a career in interpreting for deaf and hearing people. Students will be trained in the various aspects of interpreting and upon completion of the program should be prepared to work in the field. As an interpreter one will function as a facilitator between the deaf person and the hearing person.
Prerequisites: American Sign Language 1 and 2;
Recommended Preparation: American Sign Language 101A and 101B.

| FALL SEMESTER I |  |  |
| :---: | :---: | :---: |
| ASL3 | American Sign Language III | 4 |
| A SL 16 | Creative Signing | 2 |
| A SL30 | Fingerspelling I | 1 |
| A SL40 | Introduction to Deaf Culture | 3 |
| ${ }^{1}$ A S L 101C | American Sign Language Lab | 1 |
| *English 101 | College Reading and Composition I | 3 |
| *Gen Ed | Social and Behavioral Science | 3 |
| SPRING SEMESTER I |  |  |
| A SL4 | American Sign Language IV | 4 |
| A S L 101D | American Sign Language Lab | 1 |
| ASL5 | Introduction to Interpreting | 3 |
| A SL31 | Fingerspelling II | 1 |
| *Anthro 104 | Human Language and Communication | 3 |
| *Speech 121 | The Process of Interpersonal |  |
|  | Communication | 3 |
|  | Or |  |
| *Speech 101 | Oral Communication I | 3 |

## FALL SEMESTER II

| A S L 6 | English-to-Sign Interpreting/Transliterating | 4 |
| :--- | :--- | :--- |
| A S L 10 | Sign-to-English Interpreting/Transliterating | 4 |
| A S L 22 | Professional Issues and Practice I | 2 |

Professional Issues and Practice l 2
*Gen Ed Math 115 (or equivalent)

## SPRING SEMESTER II

A SL55 Interpreting 4
A SL65 Transliterating
A S L 23 Professional Issues and Practice II
*Health 10 Health Education
*Phys Ed Physical Education Activity
*Gen Ed Natural Sciences
Natural Sciences
$\begin{array}{ll}\text { A SL15 } & \text { Linguistics of A S L } \\ \text { A SL25 } & \text { Conversational American Sign Language }\end{array}$
A S L $25 \quad$ Conversational American Sign Language
${ }^{1}$ Required for ASL/Interpreting majors; optional for non-majors.
*Meets Associate Degree General Education Requirement.
Note: A S L 1-4, A S L 40, and Anthro 104 meet the Humanities requirement for graduation.

## Anatomy and Physiology

## Certificate of Achievement

Completion of this certificate will provide the student with a basic knowledge of the structure and functions of the human body as well as a foundation in general biological concepts.

## REOUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Biology 3 | Introduction to Biology | 4 |
| Chemistry 51 | Fundamentals of Chemistry <br> or | 5 |
| Chemistry 60 | Introduction of General Chemistry | 5 |
| Chemistry 101 | or | General Chemistry I |
| Take either of the following pairs of classes: | 5 |  |
| Anatomy 1 | Introduction to Human Anatomy | 4 |
| Physiology 1 | Introduction to Human Physiology | 4 |
| Physiology 8 | or | Integrated Human Anatomy and Physiology I 4 |
| Physiology 9 | Integrated Human Anatomy and Physiology II 4 |  |

## Anthropology

Certificate of Achievement

| REQUIRED COURSES |  |  |
| :--- | :--- | :---: |
|  |  |  |
| Anthro 101 | Human Biological Evolution | 3 |
| Anthro 102 | Human Ways of Life: Cultural Anthropology | 3 |
| Plus 8-9 additional units from |  |  |
| Anthro 104 | Human Language and Communication | 3 |
| Anthro 105 | Prehistoric Peoples |  |
| Anthro 106 | Introduction to Archaeology | 3 |
| Anthro 109 | Gender, Sex and Culture | 4 |
| Anthro 111 | Laboratory in Human Biological Evolution | 3 |
| Anthro 119 | An Introduction to Forensic Anthropology | 2 |
| Anthro 121 | Anthropology of Religion, |  |
|  | Magic, and Witchcraf |  |
| Anthro 132 | Native Peoples of North America | 3 |
| Anthro 141 | Culture, Illness \& Healing | 3 |
| Anthro 150 | Current Topics in Anthropology | 3 |
|  |  | 3 |

## Archaeology

## Certificate of Achievement

Provides an introduction to archaeological theory and hands-on experience with analytical strategies and field methods. Students will have sufficient training to participate in archaeological research programs.

## REOUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Anthro 106 | Introduction to Archaeology | 4 |
| Anthro 113 | Field Archaeology | 3 |
| Anthro 119 | An Introduction to Forensic Anthropology | 2 |
| Plus 6 additional units from |  |  |
| Agriculture 800 | Plant Identification and Use I | 3 |
| Agriculture 975 | California Native Plants |  |
| Geog 31/GIS 31 | Introduction to Geographic | 3 |
|  | Information Systems |  |
| Geology 1 | Physical Geology | 3 |
| Geology 6 | Physical Geology Laboratory | 3 |
| Geology 12 | Introduction to the Geology of California | 2 |
| Library Sci 102 | Internet Research Methods | 1 |
| Photography 10 | Beginning Photography | 3 |

## Architecture Architecture Technology

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program is designed to prepare students interested in obtaining employment as architectural technicians or transferring to schools of Architecture. The program has been developed through an advisory committee of architects, technicians, contractors, and Pierce College faculty. For General Education Subject Requirements, follow Option 2. If an eventual 4 -year degree is considered, be aware of the requirements different from Option 2.

UNITS

| FIRST SEMESTER |  |  |
| :---: | :---: | :---: |
| Arch 110 | Introduction to Architecture | 1 |
| Arch 172 | Architectural Drawing I | 3 |
| Env Des 101 | Elements of Architecture | 3 |
| Arch 111 | Methods of Construction | 2 |
| ${ }^{2,3,5}$ Math 146 | Technical Mathematics II | 3 |
| SECOND SEMESTER |  |  |
| Arch 173 | Architectural Drawing II | 3 |
| Arch 151 | Materials of Construction | 3 |
| Arch 201 | Basic Architectural Design I | 3 |
| Arch 162 | Computer Aided Design and Drafting General Education | 3 3 |
| THIRD SEMESTER |  |  |
| Arch 271 | Architectural Drawing III | 3 |
| Arch 152 | Equipment of Buildings | 3 |
| Arch 202 | Basic Architectural Design II | 3 |
| ${ }^{5}$ English 28 | Intermediate Reading and Composition Or | 3 |
| English 101 | College Reading and Composition I | 3 |
|  | ${ }^{\prime}$ Architectural Elective | 3 |
| FOURTH SEMESTER |  |  |
| Arch 272 | Architectural Drawing IV | 3 |
| Arch 121 | Freehand Drawing I | 2 |
| Env Des 221 | Architectural Rendering | 2 |
|  | Art Elective | 3 |
| ${ }^{6}$ Health 10 | Health Education | 2 |
| ${ }^{6}$ Phys Ed | Physical Education Activity | 1 |
|  | General Education | 6 |

[^1]Note: CA State Polytechnic Universities, San Luis Obispo and Pomona offer degrees in Architecture and Planning. See a counselor or department advisor for further information.

## Certificate Program

For students who wish to complete two classes (minimum) in one year to prepare for employment. A minimum of 37 units is required. Cannot be completed in one academic year.

|  |  | UNITS |
| :--- | :--- | :---: |
| Arch 110 | Introduction to Architecture | 1 |
| Arch 172 | Architectural Drawing I | 3 |
| Arch 173 | Architectural Drawing II | 3 |
| Arch 271 | Architectural Drawing III | 3 |
| Env Des 101 | Elements of Architecture | 3 |
| Arch 121 | Freehand Drawing I | 2 |
| Env Des 221 | Architectural Rendering | 2 |
| Arch 111 | Methods of Construction | 2 |
| Arch 151 | Materials of Construction | 3 |
| Arch 152 | Equipment of Buildings | 3 |
| Arch 201 | Basic Architectural Design I | 3 |
| Arch 202 | Basic Architectural Design II | 3 |
| Arch 162 | Computer Aided Design and Drafting | 3 |
| Math 146 | Technical Mathematics II | 3 |

## Art

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Students wishing to pursue an Associate in Arts Degree under Associate Degree Option 2 must complete a minimum of 18 units in General Education as required in the College. In addition they must complete a core program of Basic Art Courses, and a program in depth chosen from one of the Art Concentrations listed below. An Associate in Arts Degree in Fine Arts would, therefore, typically include the following:

| General Education | 18 Units |
| :--- | ---: |
| Required Basic Art Courses | 18 Units |
| Art Course Concentration | $18-21$ Units |
| Elective Courses | $6-7$ Units |

REQUIRED BASIC ART COURSES:
Art 101, 102, 201, 202,501,502 18 Units
CERAMIC DESIGN CONCENTRATION
Art 700, 708AB, 709AB, 710AB, 711AB 18 Units
SCULPTURE CONCENTRATION
Art 700, 701, 702, 703, 204

DRAWING CONCENTRATION
Art 203, 204, 205, 206, 300 or 307, 50318 Units
PAINTING CONCENTRATION
Art 300 or 307, 304 or 308, 203, 204, 205, 305 or 309, 50321 Units
Students wishing to survey a variety of traditional art media may elect the following course of study:

## SURVEY OF ART COURSES

Art 204, 300 or 307, 503, 700, 721, 708
18 Units

## Art - Graphic Design

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Students wishing to pursue an Associate in Arts degree under Associate Degree Option 2 must complete a minimum of 18 units in General Education as required by the College. This program is planned for students who expect to make advertising art or graphic design their vocation. Satisfactory completion of the course of study below leads to the Associate in Arts Degree.

| FIRST SEMESTER |  |  |
| :---: | :---: | :---: |
| Art 201 | Drawing I | 3 |
| Art 501 | Beginning Two-Dimensional Design | 3 |
| Art 604 | Graphic Design I | 3 |
|  | ${ }^{3}$ General Education | 3 |
| SECOND SEMESTER |  |  |
| ${ }^{1}$ Art 103 | Art Appreciation I | 3 |
| Art 605 | Graphic Design II | 3 |
| Art 620 | Illustration I | 3 |
|  | ${ }^{3}$ General Education | 6 |
| THIRD SEMESTER |  |  |
| Art 606 | Graphic Design III | 3 |
| Art 621 | Illustration II | 3 |
|  | ${ }^{2}$ Art Elective | 3 |
|  | ${ }^{3}$ General Education | 6 |
| FOURTH SEMESTER |  |  |
| Art 617 | Graphic Communications IV | 3 |
| Art 622 | Illustration for the Graphic Designer | 3 |
|  | Art Elective | 3 |
|  | ${ }^{3}$ General Education | 3 |

${ }^{1}$ Meets humanities requirement for general education.
${ }^{2}$ Six units of art electives chosen from Art 204, 300, 502.
${ }^{3}$ See Associate Degree General Education Requirements.

## Certificate Program - Graphic Design

This program provides specialized training in Graphic Design for employment. A minimum of 34 units is required.

|  |  | UNITS |
| :--- | :--- | :---: |
| Art 201 | Drawing I | 3 |
| Art 501 | 2D Design | 3 |
| Art 502 | 3D Design | 3 |
| Art 503 | Intermediate Design | 3 |
| Art 604 | Graphic Design I | 3 |
| Art 605 | Graphic Design II | 3 |
| Art 606 | Graphic Design III | 3 |
| Art 615 | Graphic Communications II | 4 |
| Art 616 | Graphic Communications III | 4 |
| Art 617 | Graphic Communications IV | 4 |
| Art 620 | IIlustration I | 3 |
| Art 622 | IIlustration II | 3 |
| Art 622 | Illustration for the Graphic Designer | 3 |
| Art 650 | Graphic Design for the World Wide Web | 3 |
| Art 651 | Animation for Web | 3 |

## Certificate of Achievement - Graphic Design for the Web

This certificate is planned for students who expect to start a career in graphic design with a specialty in web design. Satisfactory completion of courses below leads to a certificate of achievement in Graphic Design for the Web. A minimum of 15 units is required.

|  |  | UNITS |
| :--- | :--- | :---: |
| Art 501 | Beginning Two-Dimensional Design | 3 |
| Art 604 | Graphic Design I | 3 |
| Art 605 | Graphic Design II | 3 |
| Art 650 | Graphic Design for the World Wide Web | 3 |
| Art 651 | Animation for the Web | 3 |

## Biology

## Certificate of Achievement Biotechnology

Completion of this certificate will provide students with an introduction to many of the concepts of and techniques used in biotechnology. Extensive hands on laboratory work will prepare students to apply these techniques in other laboratory settings.

## REQUIRED COURSES

| Biology 6 | General Biology I |
| :--- | :--- |
| Biology 40 | The Science of Biotechnology |
| Chemistry 101 | General Chemistry I |
| Philosophy 29 | The Ethics of Biotechnology |

Philosophy 29 The Ethics of Biotechnology
5

## Certificate of Achievement -

Field Biology
Completion of this certificate provides both general interest students and those preparing for transfer with a thorough background in the natural sciences with an emphasis on field studies.

## REQUIRED COURSES

| Biology 3 | Introduction to Biology <br> or <br> Biology 10 <br> Natural History I |
| :--- | :--- |

Biology 10 Natural History I
And 3 units from the following:
Biology 11 Natural History II
(any module: A, B, C, etc.)
Biology $12 \quad$ Natural History and Field Biology I 1
(any module: A, B, C, etc.)
Biology 18 Natural History and Field Biology II
(any module: A, B, C, etc.)
Select 8 additional units from the following:
Agriculture 950 Introduction to Wildlife Management 2
Astronomy 1 Elementary Astronomy
Astronomy 2 Elementary Astronomy Laborator
Astronomy 3 Introductory Astronomy
Geology 1 Physical Geology
Geology $6 \quad$ Physical Geology Laboratory
Meteorology 3 Introduction to Weather and Climate
2
3

## Certificate of Achievement General Biology

Upon completion of this certificate the student will have achieved a thorough understanding of the basic biological concepts that provide a solid foundation for Biology majors.

REQUIRED COURSES

| Biology 6 | General Biology I |
| :--- | :--- |
| Biology 7 | General Biology II |
| Chemistry 102 | General Chemistry II |

UNITS
5
Biology 7 General Biology II

## Certificate of Achievement - Marine Biology

Completion of this certificate will provide both general interest students and those preparing for transfer with considerable knowledge of marine biology and general biological concepts.

| REQUIRED COURSES |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| Biology 121/ | Lectures in Marine Biology | 3 |
| Oceano 12 |  |  |
| Biology 122/ | Marine Biology Laboratory | 2 |
| Oceano 14 |  |  |
| Biology 11A | Natural History II | 1 |
| Biology 11C | Natural History II | 1 |
| Select a minimum of 6 to a maximum of 10 units from the following: |  |  |
| Biology 3 | Introduction to Biology | 4 |
| Biology 6 | General Biology I | 5 |
| Biology 7 | General Biology II | 5 |
| Chemistry 60 | Introduction to General Chemistry | 5 |
|  | or |  |
| Chemistry 101 | General Chemistry I | 5 |
| Oceano 1 | Introduction to Oceanography | 3 |
| Biology 123/ |  |  |
| Oceano 2 | Introduction to Marine Biology |  |
| Oceano 10 | Physical Oceanography Laboratory | 2 |

## Certificate of Achievement - Microbiology

Completion of this certificate will provide the student with a knowledge of the fundamentals of and techniques used in microbiology as well as foundation in general biological concepts.

REOUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Biology 3 | Introduction to Biology | 4 |
|  | or | 5 |
| Biology 6 | General Biology I | 5 |
| Chemistry 51 | Fundamentals of Chemistry | 5 |
| Chemistry 60 | or | Introduction of General Chemistry |
| Chemistry 101 | or | General Chemistry I |
| Microbiology 20 | General Microbiology | 5 |
| Microbiology 1 | or | Introductory Microbiology |

## Business Administration Accounting

## Associate in Arts Degree

This program is designed to prepare a student for entry into the business community as an accounting clerk or a middle-management trainee. It will provide the educational background for preparing the student to fulfill the needs of business in maintaining records, financial controls, and preparing informational reports for management decision-making processes and for governmental requirements.
Typical Positions: bookkeeper, accounting clerk, assistant auditor, financial analyst, and proprietor.
REQUIRED AREA SUBJECTS

| ${ }^{2}$ Acctg 1 | Introductory Accounting I |
| :--- | :--- |
| Acctg 2 | Introductory Accounting II |
| Acct 15 | Trax Accounting I |
| Acct 17 | Payroll Accounting |
| Bus 1 | Introduction to Business |
| Bus 5 | Business Law I |
| Finance 1 | Principles of Finance |
| Mgmt 13 | Small Business Management I |
| ${ }^{\text {1'CAOT 32 }} 3$ | Business Communications |
| CAOT 78 | Microcomputer Accounting Applications <br>  <br>  <br> for the Electronic Office |

UNITS 5
5
Plan to attend a four-year college or university after graduating from Pierce. See Associate Degree Option 1 on page 48.
ELECTIVE AREA SUBJECTS (15 UNITS MINIMUM)

| *Bus 10 | Fundamentals of Tax Return Preparation | 3 |
| :--- | :--- | ---: |
| Finance 2 | Investments | 3 |
| Finance 8 | Personal Finance | 3 |
| Int Bus 1 | International Trade | 3 |
| Mgmt 2 | Organization and Management Theory | 3 |
| Mgmt 33 | Personnel Management | 3 |
| Market 1 | Principles of Selling | 3 |
| Market 21 | Principles of Marketing | 3 |
| Supv 1 | Elements of Supervision | 3 |
| Coop Ed | Work Experience | $1-4$ |

ADDITIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS) SEE ASSOCIATE DEGREE, OPTION 2

## Natural Sciences <br> Humanities <br> Health and Physical Education <br> Social and Behavioral Sciences

UNITS
3
3
3
3
3
3
3
3

1-4

Socialand Behavioral Sciences
*Volunteer Income Tax Assistance Courses, TBA.
${ }^{1}$ CAOT 32 meets Language and Rationality (D1) General Education requirement.
${ }^{2}$ Acctg 1 meets Language and Rationality (D2) General Education requirement.
Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

## Certificate of Achievement - Payroll Accounting

This certificate prepares students for basic entry-level bookkeeping and other support positions in payroll administration. Courses offer exposure to relevant computer applications. All of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration Accounting, and most are UC:CSU transferable.
REOUIRED COURSES

| Bus 1 | Introduction to Business |
| :--- | :--- |
| Acctg 1 | Introductory Accounting I |
| Acctg 2 | Introductory Accounting II |
| Acctg 17 | Payrol Accounting |

Acctg 17 Payroll Accounting

## Certificate of Achievement - Small Business Accounting

This certificate prepares students for basic entry-level bookkeeping and other support positions in small and medium sized businesses. Courses offer exposure to relevant computer applications. All of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration - Accounting, and most are UC:CSU transferable.

## REQUIRED COURSES

| Bus 1 | Introduction to Business | UN |
| :--- | :--- | ---: |
| Mgmt 13 | or | 3 |
| Small Business Management I | 3 |  |
| Acctg 1 | Introductory Accounting I | 5 |
| Acctg 2 | Introductory Accounting II | 5 |
| CAOT 78 | Microcomputer Accounting Applications <br> for the Electronic Office | 3 |

## Certificate of Achievement - Tax Preparation

This certificate prepares students for basic entry-level bookkeeping and other support positions in the tax preparation industry. Courses offer exposure to relevant computer applications. Most of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration - Accounting, and most are UC:CSU transferable.

REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Bus 1 | Introduction to Business | 3 |
| Acctg 1 | Introductory Accounting I | 5 |
| Acctg 2 | Introductory Accounting II | 5 |
| Acctg 15 | Tax Accounting I | 3 |
| Bus 10 | or |  |
|  | Fundamentals of Tax Return Preparation | 3 |
|  | (Volunteer Income Tax Assistance course) |  |

## Business Administration Finance

## Certificate of Achievement

This certificate prepares students for basic entry-level positions in the financial services industry, including banking, insurance, brokerage and real estate. Each course offers exposure to relevant computer applications. Many of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration, and all are CSU transferable.

## REQUIRED COURSES

Bus 1
Introduction to Business
Acctg 1
Finance 1
Finance 2
Finance 8

Introductory Accounting I
Principles of Finance
Investments
Personal Finance
UNITS
3
5
3
3
3

## Business Administration General Business

## Associate in Arts Degree

This program is designed to provide a broad formal business education for those students thinking of starting their own business. It provides great latitude in course selection to allow students to tailor the program to their goals.
REQUIRED AREA SUBJECTS

|  |  |
| :--- | :--- |
| ${ }^{2}$ Acctg 1 | Introductory Accounting I |
| Bus 1 | Introduction to Business |
| Bus 5 | Business Law I |
| Mgmt 2 | Organization and Management Theory |
| Mgmt 13 | Small Business Management I |
| Market 1 | Principles of Selling |
| Market 11 | Fundamentals of Advertising |
| Market 21 | Principles of Marketing |
| ${ }^{1}$ CAOT 32 | Business Communications |
| CAOT 82 | Microcomputer Software Survey in the Office |

UNITS
Bus 1 Introduction to Business
Bus 5
Mgmt 2
Mgmt 13
Market 1
Market 21
CAOT 82
5 3 3 3
3
3

Microcomputer Software Survey in the Office

## ELECTIVE AREA SUBJECTS ( 15 UNITS MINIMUM)

| Acctg 2 | Introductory Accounting II |
| :--- | :--- |
| Finance 1 | Principles of Finance |
| Finance 2 | Investments |
| Finance 8 | Personal Finance |
| Int Bus 1 | International Trade |
| Mgmt 6 | Public Relations |
| Mgmt 31 | Human Relations for Employees |
| Mgmt 33 | Personnel Management |
| Market 31 | Retail Merchandising |
| Real Es 1 | Real Estate Principles |
| Supv 1 | Elements of Supervision |

UNITS
5
3
3
3
3
3
3
3
3
3
3

ADDITIOTIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS)
SEE ASSOCIATE DEGREE REQUIREMENTS, OPTION 2.

|  | UNITS |
| :--- | :---: |
| Natural Sciences | 3 |
| Humanities | 3 |
| Health and Physical Education | 3 |
| Social and Behavioral Sciences | 3 |

${ }^{1}$ CAOT 32 meets Language and Rationality (D1) General Education requirement. ${ }^{2}$ Acctg 1 meets Language and Rationality (D2) General Education Requirement.
Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

## Certificate of Achievement - General Business

This certificate prepares students for entry-level employment and offers other majors a basic preparation in business administration. Courses offer exposure to relevant computer applications. All of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration, and all are CSU transferable.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Bus 1 | Introduction to Business | 3 |
| Bus 5 | Business Law I | 3 |
| Acctg 1 | Introductory Accounting I | 5 |
| Mgmt 2 | Organization and Management Theory | 3 |
|  | or |  |
| Mgmt 13 | Small Business Management I | 3 |
| Market 1 | Principles of Selling |  |
|  | or | 3 |
| Market 21 | Principles of Marketing | 3 |

## Business Administration International Business

## Certificate Program

The Pierce College Business Administration Department International Certificate Program is designed to enable the student to function in many types of international jobs within a reasonable amount of time by offering courses with immediate practical value.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Int Bus 1 | Introduction to International Trade | 3 |
| Int Bus 6 | International Marketing | 3 |
| Int Bus 18 | Basics of Exporting | 1 |
| Int Bus 19 | Basics of Importing | 1 |
| Int Bus 22 | International Management | 3 |
| Geog 2 | Cultural Elements of Geography | 3 |
| Bus 1 | Introduction to Business | 3 |
| Market 21 | Principles of Marketing | 3 |

## Certificate of Achievement - International Trade

This certificate is designed to introduce students to basic business concepts as well as the area of international business. This certificate is the first part of our state recognized International Business Certificate Program.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Int Bus 1 | Introduction to International Trade | 3 |
| Int Bus 22 | International Management | 3 |
| Bus 1 | Introduction to Business | 3 |
| Market 21 | Principles of Marketing | 3 |

## Business Administration Management And Supervision

## Associate in Arts Degree

This program is designed to meet the needs of 1) employed persons desiring to prepare for supervisory positions, and 2) supervisors and other management personnel who wish to gain knowledge which will enable them either to perform their duties more effectively or to advance to more responsible positions. This course of study was developed with the assistance of the Business Advisory Committee and recommended by the Bureau of Industrial Education of the California State Department of Education. Those courses applied towards the Certificates of Achievement are also applicable for this Degree.
Typical Positions: Various supervisorial and managerial positions in the industrial and commercial community.

| REQUIRED AREA SUBJECTS |  |  |
| :--- | :--- | :---: |
|  |  |  |
| ${ }^{2}$ Acctg 1 | Introductory Accounting I | 5 |
| Bus 1 | Introduction to Business | 3 |
| Bus 5 | Business Law I | 3 |
| Mgmt 2 | Organization and Management Theory | 3 |
| Mgmt 31 | Human Relations for Employees | 3 |
| Mgmt 33 | Personnel Management | 3 |
| Market 21 | Principles of Marketing | 3 |
| ${ }^{1}$ CAOT 32 | Business Communications | 3 |
| CAOT 82 | Microcomputer Software Survey in the Office | 3 |

## ELECTIVE AREA SUBJECTS (12 UNITS MINIMUM)

| Acctg 2 | Introductory Accounting II |
| :--- | :--- |
| Finance 1 | Principles of Finance |
| Finance 2 | Investments |
| Finance 8 | Personal Finance |
| Mgmt 6 | Public Relations |
| Mgmt 13 | Small Business Management I |
| Market 1 | Principles of Selling |
| Supv 1 | Elements of Supervision |
| Int Bus 1 | International Trade |
| Int Bus 6 | International Marketing |
| Int Bus 11 | International Management |

Finance 1 Principles of Finance
inance 2 Investments
Mgmt $6 \quad$ Public Relations
Mgmt 13 Small Business Management
Supl 1 Pinciel Selis
International Trade
Int Bus 11 International Management
ADDITIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS) SEE ASSOCIATE DEGREE REQUIREMENTS, OPTION 2.

| Natural Sciences | 3 |
| :--- | :---: |
| Humanities | 3 |
| Health and Physical Education | 3 |
| Social and Behavioral Sciences | 3 |

${ }^{1}$ CAOT 32 meets Language and Rationality (D1) General Education requirement. ${ }^{2}$ Acctg 1 meets Language and Rationality (D2) General Education Requirement.
Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

## Certificate of Achievement Management

This certificate prepares students for first level management jobs, support positions in personnel management, and positions in any firm utilizing selfmanaged teams. Courses offer exposure to relevant computer applications. Many of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration - Management, and all are CSU transferable

REOUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Bus 1 | Introduction to Business | 3 |
| Bus 5 | Business Law I | 3 |
| Acctg 1 | Introductory Accounting I | 5 |
| Mgmt 2 | Organization and Management Theory | 3 |
| Plus 3 additional units from: |  |  |
| Mgmt 6 | Public Relations | 3 |
| Mgmt 31 | Human Relations for Employees | 3 |
| Mgmt 33 | Personnel Management | 3 |
| Supv 1 | Elements of Supervision | 3 |



## Certificate of Achievement -

## Small Business Entrepreneur

This certificate prepares students who intend to open and operate their own small business or accept a management position in a small business. Courses offer exposure to relevant computer applications. All of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration - Management, and all are CSU transferable.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Bus 1 | Introduction to Business | 3 |
| Bus 5 | Business Law I | 3 |
| Acctg 1 | Introductory Accounting I | 5 |
| Mgmt 13 | Small Business Management I | 3 |
| Market 1 | Principles of Selling | 3 |

## Business - Retail Management

## Certificate Program

The retail management certificate will result in two awards: one certificate issued by the Business Administration Department and another industry certificate issued by the Western Association of Food Chains. This curriculum prepares students for careers as managers in various retail sectors.

|  |  | UNITS |
| :--- | :--- | :---: |
| CAOT 31 | Business English | 3 |
| Market 21 | Principles of Marketing | 3 |
| CAOT 85 | Microcomputer Office | 3 |
|  | Applications: Spreadsheet |  |
| Acctg 1 | Introductory Accounting I | 5 |
| Mgmt 2 | Organization and Management Theory | 3 |
| Market 31 | Retail Merchandising | 3 |
| Speech 101 | Oral Communication I | 3 |
| Mgmt 31 | Human Relations for Employees | 3 |
| Mgmt 33 | Personnel Management | 3 |
| Math 115 | Elementary Algebra | 5 |
|  | Total | 34 |

## Business Administration Marketing

## Associate in Arts Degree

This program was developed to prepare students to enter the broad area of marketing for the business enterprise. Upon successful completion of this program, the student has a background in the principles and practices involved in the distribution of products and services from producers through middlemen to the ultimate consumer. Career opportunities include sales, public relations, purchasing, and management.
Typical positions: Retail, wholesale and industrial sales; buyer; merchandising supervision; proprietor.

## REQUIRED AREA SUBJECTS

|  |  | UNITS |
| :--- | :--- | :---: |
| ${ }^{2}$ Acctg 1 | Introductory Accounting I | 5 |
| Bus 1 | Introduction to Business | 3 |
| Bus 5 | Business Law I | 3 |
| Mgmt 6 | Public Relations | 3 |
| Mgmt 13 | Small Business Management I | 3 |
| Market 1 | Principles of Selling | 3 |
| Market 11 | Fundamentals of Advertising | 3 |
| Market 21 | Principles of Marketing | 3 |
| ${ }^{1}$ CAOT 32 | Business Communications | 3 |
| CAOT 82 | Microcomputer Software Survey in the Office | 3 |

ELECTIVE AREA SUBJECTS (15 UNITS MINIMUM)

|  |  | UNITS |
| :--- | :--- | :---: |
| Int Bus 1 | International Trade | 3 |
| Mgmt 2 | Organization and Management Theory | 3 |
| Mgmt 31 | Human Relations for Employees | 3 |
| Market 31 | Retail Merchandising | 3 |
| Supv 1 | Elements of Supervision | 3 |
| Coop Ed | Work Experience | $1-4$ |
| Int Bus 6 | International Marketing | 3 |

ADDITIONAL GENERAL EDUCATION REOUIREMENTS (12 UNITS)

|  | UNITS |
| :--- | :---: |
| Natural Sciences | 3 |
| Humanities | 3 |
| Health and Physical Education | 3 |
| Social and Behavioral Sciences | 3 |

${ }^{1}$ CAOT 32 meets Language and Rationality (D1) General Education requirement. ${ }^{2}$ Acctg 1 meets Language and Rationality (D2) General Education Requirement.
Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

## Certificate of Achievement - Marketing

This certificate prepares students for basic entry-level positions in sales, retailing, and other aspects of marketing. Courses offer exposure to relevant computer applications. All of these courses may be used to apply toward the fulfillment of the Associate in Arts Degree in Business Administration Marketing, and most are CSU transferable.

| REQUIRED COURSES |  |  |
| :---: | :--- | :---: |
|  |  | UNITS |
| Bus 1 | Introduction to Business | 3 |
| Market 1 | Principles of Selling | 3 |
| Market 11 | Fundamentals of Advertising | 3 |
| Market 21 | Principles of Marketing | 3 |
| Int Bus 6 | International Marketing | 3 |
|  | or |  |
| Mgmt 6 | Public Relations | 3 |



## Child Development

The Child Development Program offers the student several options. Completion of each program leads to an occupational certificate, transfer option and/or Associate in Arts degree. All child development classes are applicable to the State Child Development Permit. The Child Development Program is planned to meet the needs of those students wishing to prepare for employment or who are presently employed in the field of Early Childhood Education. The curriculum prepares students to teach in programs for young children, which include: Private, Parent-Cooperative, Head Start, Children's Centers, and Infant or School-age Programs. Each student should analyze these programs for their differences as well similarities before choosing a specific option. Students with background in Child Development are able to pursue professional opportunities in both educational and business fields.

## Associate of Arts Degree - Option A

60 units minimum with at least 32 units in Child Development. Must meet general education requirements for the Associate Degree.

(All courses must be completed with a grade of "C" or better)
*These courses have a prerequisite

## GRADUATION REQUIREMENTS

Consult with a counselor for General Education requirements for AA degree.

## Associate of Arts Degree - Option B

(Not designed for transfer) 54 units minimum with at least 36 units in Child Development. Must meet general education requirements for the Associate Degree.

## REQUIRED COURSES

|  |  |  |
| :--- | :--- | :---: |
|  |  | UNITS |
| CD 1 | Child Growth and Development | 3 |
| CD 2 | Early Childhood Principles and Practices | 3 |
| CD 3 | Creative Experiences for Children I | 3 |
| CD 4 | Creative Experiences for Children II | 3 |
| CD 10 | Child Health | 3 |
| CD 11 | Home, School and Community Relations | 3 |
| CD 42 | The Child in a Multi-Cultural Society | 3 |
| *CD 22-23 | Practicum in Child Development I - II | 8 |
| In addition, student will select courses from below to |  |  |
| complete 36 units in the major. |  |  |
| CD 30 | Infant Studies |  |
| CD 38 | Administration of Early Childhood Programs I | 3 |
| *CD 39 | Administration of Early Childhood Programs II 3 |  |
| CD 46 | School Age Programs | 3 |
| CD 65 | Early Childhood Mentoring | 2 |
| Psych 16 | Intimacy, Marriage \& Family Relationships | 3 |
| *Psych 17 | The Exceptional Child | 3 |
| *Psych 40 | PSychology of Parent Child Relations | 3 |
| *Eng 218 | Children's Literature | 3 |

[^2]
## GRADUATION REQUIREMENTS

Consult with a counselor for General Education requirements for AA degree.

## Child Development Occupation Certificate Preschool Teacher

## REOUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| CD 1 | Child Growth and Development | 3 |
| CD 2 | Early Childhood Principles and Practices | 3 |
| CD 3 | Creative Experiences for Children I | 3 |
|  | or |  |
| CD 4 | Creative Experiences for Children II | 3 |
| CD 10 | Child Health | 3 |
| CD 11 | Home, School and Community Relations | 3 |
| CD 42 | The Child in a Multi-Cultural Society | 3 |
| *CD 22-23 | Practicum in Child Development I \& II | $(4-4)$ |
| *Eng 28 | Intermediate Reading \& Composition | 3 |
|  | (or higher) |  |

In addition, student will select one course from below to complete 30 or 32 units in the major.

| CD 30 | Infant Studies | 3 |
| :--- | :--- | ---: |
| CD 38 | Administration of Early Childhood Programs I | 3 |
| CD 46 | School Age Programs | 3 |

(All courses must be completed with a grade of "C" of better.)
*These courses have a prerequisite
With additional G.E. units and required experience, the student will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in federal and state preschool programs.

## Child Development Certificate Associate Teacher

REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| CD 1 | Child Growth and Development | 3 |
| CD 2 | Early Childhood Principles and Practices | 3 |
| CD 3 | Creative Experiences for Children I | 3 |
|  | or |  |
| CD 4 | Creative Experiences for Children II | 3 |
| CD 10 | Child Health | 3 |
| CD 11 | Home, School and Community Relations | 3 |
| *CD 22-23 | Practicum in Child Development I \& II | $(4-4)$ |

n addition, student will select one course from below to complete 24 or 25 units in the major.

| CD 30 | Infant Studies | 3 |
| :--- | :--- | ---: |
| CD 38 | Administration of Early Childhood Programs I | 3 |
| CD 42 | The Child in a Multi-Cultural Society | 3 |
| CD 46 | School Age Programs | 3 |

(All courses must be completed with a grade of "C" of better.)
*These courses have a prerequisite
With additional G.E. units and required experience, the student will be eligible for the Child Development Permit as defined under Title 5. Meeting this requirement will enable the student to teach in federal and state preschool programs.

## Preschool Certificate A

| REQUIRED COURSES |  |  |
| :---: | :--- | :---: |
|  |  | UNITS |
| CD 1 | Child Growth and Development | 3 |
| CD 2 | Early Childhood Principles and Practices | 3 |
| CD 11 | Home, School and Community Relations | 3 |

PLUS, ANY COURSE FROM THE FOLLOWING:

|  |  | UNITS |
| :---: | :---: | :---: |
| CD 3 | Creative Experiences for Children I | 3 |
| CD 4 | Creative Experiences for Children II | 3 |

Completion of 12 units meets the State Department of Social Services minimum requirements for Child Care Center fully qualified teacher in private, for-profit centers as defined in Title 22. All courses must be completed with a grade of "C" of better.

## Director, Preschool (Cert. B)

| REQUIRED COURSES |  | UNITS |
| :--- | :--- | :---: |
| CD 1 | Child Growth and Development | 3 |
| CD 3 | Creative Experiences for Children I | 3 |
|  | or |  |
| CD 4 | Creative Experiences for Children I | 3 |
| CD 11 | Home, School and Community Relations | 3 |
| CD 38 | Administration of Early Childhood Programs I | 3 |
|  | or |  |
| CD 39 | Administration of Early Childhood Programs II 3 |  |
| Plus, any course from the following: |  |  |
| CD 2 | Early Childhood Principles and Practices | 3 |
| CD 10 | Child Health |  |
| CD 42 | The Child in a Multi-Cultural Society | 3 |

Completion of 15 units meets the State Department of Social Services minimum requirements for Child Care Center Director in private, for-profit centers as defined in Title 22. All courses must be completed with a grade of "C" of better.

## Infant Care Teacher (Cert. C)

REQUIRED COURSES

|  |  |  |
| :--- | :--- | :---: |
| CD 1 |  | UNITS |
| CD 3 | Child Growth and Development | 3 |
|  | Creative Experiences for Children I | 3 |
| CD 4 | or |  |
| CD 11 | Creative Experiences for Children II | 3 |
| CD 30 | Home, School and Community Relations | 3 |
|  | Infant Studies I | 3 |
| CD 31 | or |  |
| Plus, any course from the following: |  |  |
| CD 2 | Infant Toddler Studies II | 3 |
| CD 10 | Early Childhood Principles and Practices | 3 |
| CD 42 | Child Health | 3 |
| The Child in a Multi-Cultural Society | 3 |  |

Completion of 15 units meets the State Department of Social Services minimum requirements for Infant Care Teacher in private, for-profit and nonprofit centers as defined in Title 22. All courses must be completed with a grade of " C " of better.

## School Age Programs Teacher, Day Care (Cert. D)

REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| CD 1 | Child Growth and Development | 3 |
| CD 3 | Creative Experiences for Children I | 3 |
|  | or |  |
| CD 4 | Creative Experiences for Children II | 3 |
| CD 11 | Home, School and Community Relations | 3 |
| CD 46 | School Age Programs I | 3 |
|  | or |  |
| CD 47 | School Age Programs II |  |
| Plus, any course from the following: |  |  |
| CD 2 | Early Childhood Principles and Practices | 3 |
| CD 10 | Child Health |  |
| CD 42 | The Child in a Multi-Cultural Society | 3 |

Completion of 15 units meets the State Department of Social Services minimum requirements for Child Care Center School Age Programs Teacher/Aide in private, for-profit and non-profit centers as defined in Title 22. All courses must be completed with a grade of " $C$ " of better.

## Special Needs Certificate (Cert. E)

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | ---: |
| CD 1 | Child Growth and Development | 3 |
| CD 11 | Home, School, and Community Relations | 3 |
| CD 44 | Programs for Children w/Special Needs I | 3 |
| CD 45 | Programs for Children w/Special Needs II | 3 |
| Plus, any course from the following: |  |  |
| CD 2 | Early Childhood Principles and Practices | 3 |
| CD 10 | Child Health | 3 |
| CD 3 | Creative Experiences for Young Children I | 3 |
| CD 4 | or |  |
| Creative Experiences for Young Children II | 3 |  |

All courses must be completed with a grade of "C" of better.

## Cinema

## Certificate of Achievement - Film

Cinema courses at Pierce are survey courses, providing an overview of various aspects of film. Courses are a combination of lecture and screening of entire movies and portions of film. Grading is rigorous. Cinema 3 and Cinema 107 transfer to CSUN for film majors, as does Photography 10, a course required of film majors at CSUN.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Cinema 3 | History of Motion Pictures and Television | 3 |
| Cinema 18 | Main Currents in Motion Pictures | 3 |
| Cinema 104 | History of Documentary Films | 3 |
|  | or |  |
| Cinema 107 | Understanding Motion Pictures | 3 |
| Journal 100 | Social Values in Mass Communication | 3 |
| Plus 3 units from |  |  |
| Photo 10 | Beginning Photography | 3 |
| Philos 42 | Philosophy of Cinema | 3 |
| Spanish 26 | Understanding Latin America Through Film | 3 |
| English 240 | Literature and the Motion Pictures | 3 |
| History 40 | American History in Film | 3 |



## Computer Applications and Office Technologies General Administrative

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Students may obtain an Associate in Arts degree in Computer Applications and Office Technologies by completing the courses shown in the following certificate program AND by satisfying all the requirements shown in the college catalog under Associate Degree Requirements, Option 2, page 49.

## Certificate Program

The General Administrative Program prepares students for employment in business, government, and educational offices using automated systems and procedures. Emphasis is placed on the development of language skills and the use of computer-based word processing, spreadsheet, database, and accounting software in the performance of office functions. In addition, students are prepared to assume general office duties and decision-making office responsibilities. Completion of this program enables students to qualify for intermediate office positions and lays the foundation for entry into office management positions.

## ENTRY-LEVEL COURSES

|  | UNITS |
| :---: | :---: |
| 'CAOT 2 | Computer Keyboarding II |
| CAOT 31 | Business English |
| CAOT 34 | Business Terminology 2 |
| CAOT 82 | Microcomputer Software Survey 3 for the Office (MS Office) |
| CORE COURSES |  |
|  | UNITS |
| Acctg 1 | Introductory Accounting I |
| CAOT 39 | Word Processing: Keyboarding and Operations (MS Word) |
| ${ }^{3} \mathrm{CAOT} 67$ | Microsoft Outlook for the Office |
| CAOT 78 | Microcomputer Accounting Applications for the Electronic Office (QuickBooks) |
| CAOT 85 | Microcomputer Office Applications: 3 |
| ${ }^{2} \mathrm{CAOT} 92$ | Computer Windows Applications 2 |
| CAOT 97 | Introduction to the Internet for CAOT 3CAPSTONE |
| COURSES |  |
|  | UNITS |
| CAOT 32 | Business Communications |
| CAOT 71 | Voice-Recognition Software 3 |
|  | With Document Applications |
| ${ }^{3}$ CAOT 79 | Word Processing Applications |
| ${ }^{2}$ CAOT 86 | Microcomputer Office Applications: 3 |
| Select two courses from the following: |  |
| ${ }^{2}$ CAOT 88 | Microcomputer Office Applications: 3 |
|  | Desktop Publishing (Adobe InDesign) |
| ${ }^{3} \mathrm{CAOT} 107$ | Microcomputer Office Applications: 3 |
|  | Web Design for the Office (MS FrontPage) |
| ${ }^{3} \mathrm{CAOT} 108$ | Presentation Design for the Office (MS PowerPoint) |
| CAOT 109 | Web Multimedia for the Office 3 |
|  | (Adobe Dreamweaver, Flash, and Fireworks) |
| CAOT 113 | Introduction to Adobe Photoshop 3 for the Office |
| ${ }^{1}$ See course description for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in CAOT 1 or 9. |  |
| ${ }^{2}$ Offered in the Fall semester only. |  |
| ${ }^{3}$ Offered in the Spring semester only. |  |

## Computer Applications and Office Technologies Legal Office Procedures

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Students may obtain an Associate in Arts degree in Computer Applications and Office Technologies by completing the courses shown in the following certificate program AND by satisfying all the requirements shown in the college catalog under Associate Degree Requirements, Option 2, page 49.

## Certificate Program

The Legal Office Procedures program prepares students for employment in a legal office. Emphasis is placed on the development of language skills, the spellings and meanings of legal terminology, and the preparation of legal proceedings and cases. Extensive instruction in computer-based word processing programs and applications along with an introduction to other computerized office functions prepares students to obtain a position in a legal office.

| ENTRY-LEVEL COURSES |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| 'CAOT 2 | Computer Keyboarding II | 3 |
| CAOT 31 | Business English | 3 |
| CAOT 34 | Business Terminology | 2 |
| CAOT 82 | Microcomputer Software Survey for the Office (MS Office) | 3 |
| CORE COURSES |  |  |
|  |  | UNITS |
| Acctg 1 | Introductory Accounting I | 5 |
| Bus 5 | Business Law I | 3 |
| CAOT 39 | Word Processing: Keyboarding and Operations (MS Word) | 3 |
| ${ }^{3} \mathrm{CAOT} 66$ | Voice-Recognition Software for Computer Input | 1 |
| ${ }^{3}$ CAOT 67 | Microsoft Outlook for the Office | 1 |
| CAOT 85 | Microcomputer Office Applications: Spreadsheet (MS Excel) | 3 |
| ${ }^{2}$ CAOT 92 | Computer Windows Applications | 2 |
| CAOT 97 | Introduction to the Internet for CAOT | 3 |
| CAPSTONE COURSES |  |  |
|  |  | UNITS |
| 'CAOT 23A | Legal Procedures IA | 2 |
| 'CAOT 23B | Legal Procedures IB | 3 |
| CAOT 32 | Business Communications | 3 |
| ${ }^{2}$ CAOT 71 | Voice-Recognition Software With | 3 |
|  | Document Applications |  |
| ${ }^{2}$ CAOT 79 | Word Processing Applications | 3 |

${ }^{1}$ See course description for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in CAOT 1 or 9.
${ }^{2}$ Offered in the Fall semester only.
${ }^{3}$ Offered in the Spring semester only.

## Computer Applications and Office Technologies Administrative Professional

## Associate in Arts Degree

Associate degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Students may obtain an Associate in Arts degree in Computer Applications and Office Technologies by completing the courses shown in the following certificate program AND by satisfying all the requirements shown in the college catalog under Associate Degree Requirements, Option 2, page 49.

## Certificate Program

The Administrative Professional Program prepares students for supervisorial and managerial positions in business offices. This curriculum is directed toward enabling a candidate to complete successfully an examination developed and administered by the International Association for Administrative Professionals (IAAP) to attain the designation Certified Professional Secretary (CPS). Completion of this curriculum, acceptable scores on the CPS examination, and at least two years of successful office experience qualify the student for certification. CPS certification is the first step toward qualification for Certified Administrative Professional (CAP) certification.

## ENTRY-LEVEL COURSES

| ENTRY-LEVEL COURSES |  |  |
| :---: | :--- | :---: |
|  |  | UNITS |
| Acctg 1 | Introductory Accounting I | 5 |
| Bus 1 | Introduction to Business | 3 |
| 'CAOT 2 | Computer Keyboarding II | 3 |
| CAOT 31 | Business English | 3 |


| CORE COURSES |  |  |
| :--- | :--- | :---: |
|  |  | UNITS |
| Bus 5 | Business Law I | 3 |
| Econ 2 | Principles of Economics I | 3 |
| Mgmt 2 | Organization and Management Theory | 3 |
| CAOT 39 | Word Processing: Keyboarding and | 3 |
|  | Operations (MS Word) |  |
| ${ }^{3}$ CAOT 67 | Microsoft Outlook for the Office | 1 |
| CAOT 78 | Microcomputer Accounting Applications | 3 |
|  | for the Electronic Office (QuickBooks) |  |
| CAOT 85 | Microcomputer Office Applications: | 3 |
|  | Spreadsheet (MS Excel) |  |
| ${ }^{2}$ CAOT 92 | Computer Windows Applications | 2 |
| CAOT 97 | Introduction to the Internet for CAOT | 3 |

CAPSTONE COURSES

|  |  | UNITS |
| :---: | :---: | :---: |
| CAOT 32 | Business Communications | 3 |
| ${ }^{2}$ CAOT 71 | Voice-Recognition Software | 3 |
|  | With Document Applications |  |
| ${ }^{3}$ CAOT 79 | Word Processing Applications | 3 |
| ${ }^{2}$ CAOT 86 | Microcomputer Office Applications: | 3 |
|  | Database (MS Access) |  |
| ${ }^{3}$ CAOT 108 | Presentation Design for the Office (MS PowerPoint) | 2 |

${ }^{1}$ See course description for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in CAOT 1 or 9.
${ }^{2}$ Offered in the Fall semester only.
${ }^{3}$ Offered in the Spring semester only.

## Computer Applications and Office Technologies Basic Computerized Accounting*

Certificate Program

Students are prepared for entry-level employment in business, government, or educational offices. Certificate holders will be able to use automated systems and procedures for bookkeeping and accounting applications, processing financial data, and creating managerial reports.

| Acctg 1 | Introductory Accounting I | 5 |
| :--- | :--- | :---: |
| CAOT 78 | Microcomputer Accounting Applications <br> for the Electronic Office (QuickBooks) | 3 |
| CAOT 85 | Microcomputer Office Applications: |  |
| ${ }^{2}$ CAOT 92 92 | Spreadsheet (MS Excel) <br> Computer Windows Applications | 2 |

*For an Associate in Arts degree or a two-year certificate in Accounting, refer to listing under Business Administration: Accounting.

## Computer Applications and Office Technologies Basic Computer Applications

## Certificate Program

Students are prepared for employment in business, government, and educational offices using computerized systems and procedures. Emphasis is placed on developing skills in the use of word processing, spreadsheet, and database software to perform routine office functions. Completion of this program enables students to qualify for entry-level positions in an automated office and lays the foundation for further study and advancement in office occupations.


## Computer Applications and Office Technologies - Advanced Computer Applications

## Certificate Program

After completing the Basic Computer Applications certificate program, students are prepared for entry-level positions in an automated office. The Advanced Computer Applications certificate adds four courses, which lay the foundation for obtaining additional knowledge and skills in the Internet, advanced word processing functions, desktop publishing, and Web site development. Students completing this certificate are qualified for intermediate positions in an automated office.

| ENTRY-LEVEL COURSES |  | UNITS |
| :---: | :--- | :---: |
| 'CAOT 2 | Computer Keyboarding II | 3 |
| CAOT 31 | Business English | 3 |
| CAOT 34 | Business Terminology | 2 |
| CAOT 82 | Microcomputer Software Survey | 3 |
|  | for the Office (MS Office) |  |
| CAOT 100 | or | Windows-Based Computer Applications |


| CORE COURSES |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| CAOT 39 | Word Processing: Keyboarding and Operations (MS Word) | 3 |
| ${ }^{3} \mathrm{CAOT} 66$ | Voice-Recognition Software for Computer Input | 1 |
| CAOT 85 | Microcomputer Office Applications: Spreadsheet (MS Excel) | 3 |
| ${ }^{2}$ CAOT 92 | Computer Windows Applications | 2 |

CAPSTONE COURSES

| ${ }^{2}$ CAOT 86 | Microcomputer Office Applications: <br> Database (MS Access) |
| :--- | :--- |
|  | 3 |

Select four courses from the following:
${ }^{3}$ CAOT $79 \quad$ Word Processing Applications 3
${ }^{2}$ CAOT 88 Microcomputer Office Applications: 3
CAOT 97 Desktop Publishing (Adobe InDesign)
${ }^{3}$ CAOT 107 Microcomputer Office Applications: 3
Web Design for the Office (MS FrontPage)
$\begin{array}{lll} & \text { (MS PowerPoint) } \\ \text { CAOT } 109 & \text { Web Multimedia for the Office } & 3\end{array}$
(Adobe Dreamweaver, Flash, and Fireworks)
CAOT 113 Introduction to Adobe Photoshop 3
${ }^{3}$ CAOT 114 Adobe Acrobat for the Office and the Web 2
${ }^{1}$ See Pierce College Catalog course description or CAOT Web site
(www.piercecollege.eduldepartments/CAOT) for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in CAOT 1 or 9.
${ }^{2}$ Offered Fall semester only.
${ }^{3}$ Offered Spring semester only.

## Computer Applications and Office Technologies Basic Internet

## Certificate of Achievement

Students may obtain a certificate of achievement specializing in the Internet by completing the courses shown below. Completion of this program provides students with the skills required by business offices for using the Internet to locate and capture information as well as for maintaining intranet and Internet Web pages.

| ENTRY-LEVEL COURSES |  | UNITS |
| :---: | :--- | :---: |
| CAOT 82 | Microcomputer Software Survey <br> for the Office (MS Office) <br> or <br> Windows-Based Computer Applications | 3 |
| CORE COURSES | Word Processing: Keyboarding | UNITS |
| CAOT 39 | Word <br> and Operations (MS Word) <br> Introduction to the Internet for | 3 |
| CAOT 97 | CAOT <br> Computer Windows Applications | 2 |


| CAPSTONE COURSES |  |  |
| :---: | :--- | :---: |
|  |  | UNITS |
| ${ }^{2}$ CAOT 79 | Word Processing Applications | 3 |
| ${ }^{2}$ CAOT 107 | Microcomputer Office Applications: | 3 |
|  | Web Design for the Office (MS FrontPage) |  |
| CAOT 109 | or | Web Multimedia for the Office (Adobe |
|  | Dreamweaver, Flash, and Fireworks) | 3 |

${ }^{1}$ Offered Fall semester only.
${ }^{2}$ Offered Spring semester only.

Plan to attend a four-year college or university after graduating from Pierce.

See Associate Degree
Option 1 on page 48.

## Computer Applications and Office Technologies Basic Word Processing: Microsoft Word for Windows

## Certificate Program

Students may obtain a basic word processing certificate in Microsoft Word by completing the courses shown below. Completion of the program provides students with the skills required for entry-level employment in offices using Microsoft Word software.

| ENTRY-LEVEL COURSES |  |  |
| :---: | :--- | :---: |
| 'CAOT 2 | Computer Keyboarding II | 3 |
| CAOT 31 | Business English | 3 |
| CAAT 34 | Business Terminology | 2 |
| CAOT 82 | Microcomputer Software Survey in the Office | 3 |
| CORE COURSES |  |  |
|  |  | UNITS |
| CAOT 39 | Word Processing: Keyboarding and | 3 |
|  | Operations (MS Word) |  |
| ${ }^{2}$ CAOT 92 | Computer Windows Applications | 2 |

CAPSTONE COURSES
${ }^{3}$ CAOT $79 \quad$ Word Processing Applications (MS Word) 3
3
${ }^{1}$ See Pierce College Catalog course description or CAOT Web site (www.piercecollege.eduldepartments/CAOT) for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in CAOT 1 or 9 .
${ }^{2}$ Offered Fall semester only.
${ }^{3}$ Offered Spring semester only.

## Computer Applications and Office Technologies Desktop Publishing

## Certificate of Achievement

Provides students with the knowledge and skills to create professional-looking documents for business, government organizations, and educational institutions using high-end desktop publishing and imaging software.

| CORE COURSES |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| Art 604 | Graphic Design I | 3 |
| CAOT 39 | Word Processing: Keyboarding and | 3 |
|  | Operations (MS Word) |  |
|  | OR |  |
| CAOT 96 | Adobe Creative Suite Survey for the Office and the Web | 3 |
| CAPSTONE COURSES |  |  |
|  |  | UNITS |
| 'CAOT 88 | Microcomputer Office Applications: | 3 |
|  | Desktop Publishing (Adobe InDesign) |  |
| CAOT 113 | Introduction to Adobe Photoshop | 3 |
|  | for the Office |  |
| ${ }^{2}$ CAOT 114 | Adobe Acrobat for the Office and the Web | 2 |
| 'CAOT 120 | Adobe Illustrator for the Office and the Web | 3 |

[^3]
## Computer Applications and Office Technologies Legal Office Skills

## Certificate of Achievement

Provides the knowledge and skills needed to obtain an entry-level position in a legal office. Students will obtain word processing and communication skills as well as knowledge of legal office vocabulary and practical experience in preparing legal documents. Covers legal office procedures and legal office protocols.

CORE COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Bus 5 | Business Law I | 3 |
| CAOT 31 | Business English | 3 |
| CAOT 39 | Word Processing: Keyboarding and | 3 |
|  | Operations (MS Word) |  |
|  |  |  |

CAPSTONE COURSES

> CAOT 23 A
> CAOT 23 B
> CAOT 32
Legal Procedures IA
Legal Procedures IB
Business Communications
UNITS

UNITS
Business English 3
3 3

## Computer Applications and Office Technologies Office Clerical

## Certificate of Achievement

Prepares students for entry-level office positions. Students will attain skills in computer keyboarding, proofreading, editing, and business letter formatting. They will be provided hands-on training in the Windows operating system and applications software, which includes document creation with word processing (Microsoft Word), basic spreadsheet applications (Microsoft Excel), and Internet applications. Students will develop reading, writing, business grammar, punctuation, and business oral communication skills. Students will learn indexing rules for filing. They will comprehend office records management and proper business telephone etiquette. They will possess knowledge of dress codes and work ethics. Students will be able to apply job-search techniques, including the content and format of a job application, cover letter, and résumé. Emphasis is placed on skills that promote success in the workplace.

|  |  | UNITS |
| :--- | :--- | :---: |
| CAOT 1 | Computer Keyboarding I | 3 |
| CAOT 55 | Career Skills for the Workplace 2000 | 3 |
| CAOT 100 | Windows-Based Computer Applications | 3 |
| CAOT 130 | Communication Skills in the Workplace | 3 |

## Computer Applications and Office Technologies Office Communications

## Certificate Program

Students are prepared for employment in business, government, and educational offices. Emphasis is placed on the development of keyboarding, voice input, and language skills to perform the following functions: prepare business documents, handle telephone inquiries, use an e-mail system, schedule appointments and tasks, and complete forms. Completion of this program enables students to qualify for entry-level office positions and lays the foundation for further study and advancement in office occupations.

| ENTRY-LEVEL COURSES |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| 'CAOT 2 | Computer Keyboarding II | 3 |
| CAOT 31 | Business English | 3 |
| CAOT 34 | Business Terminology | 2 |
| CORE COURSES |  |  |
|  |  | UNITS |
| CAOT 39 | Word Processing: Keyboarding and Operations (MS Word) | 3 |
| CAOT 55 | Career Skills for the Workplace 2000 | 3 |
| ${ }^{3} \mathrm{CAOT} 66$ | Voice-Recognition Software for Computer Input | 1 |
| ${ }^{3} \mathrm{CAOT} 67$ | Microsoft Outlook for the Office | 1 |
| CAOT 97 | Introduction to the Internet for CAOT | 3 |
| CAPSTONE COURSES |  |  |
|  |  | UNITS |
| CAOT 32 | Business Communications | 3 |
| ${ }^{2} \mathrm{CAOT} 71$ | Voice-Recognition Software With | 3 |
|  | Document Applications |  |

${ }^{1}$ See Pierce College Catalog course description or CAOT Web site (www.piercecollege.eduldepartments/CAOT) for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in CAOT 1 or 9.
${ }^{2}$ Offered in the Fall semester only.
${ }^{3}$ Offered in the Spring semester only.

## Computer Applications and Office Technologies - Web Site Construction and Maintenance

## Certificate of Achievement

In the high-tech office environment, administrative professionals are often required to construct and maintain Internet Web sites and organizational intranet sites. Courses in the Web Site Construction and Maintenance Certificate of Achievement prepare students to assume this responsibility. Besides learning how to use and apply Web site authoring tools, students will acquire knowledge and skill in applying graphic design principles.

| CORE COURSES |  |  |
| :--- | :--- | :---: |
|  |  | UNITS |
| Art 604 | Graphic Design I | 3 |
| ${ }^{2}$ CAOT 107 | Microcomputer Office Applications: Web | 3 |
|  | Design for the Office (Microsoft FrontPage) |  |
| ${ }^{2}$ CAOT 108 | Presentation Design for the Office | 2 |
|  | (PowerPoint) |  |

## CAPSTONE COURSES

| CAOT 109 | Web Multimedia for the Office <br> (Adobe Dreamweaver, Flash, Fireworks) <br> Introduction to Adobe Photoshop <br> for the Office | 3 |
| :--- | :--- | :---: |
| CAOT 113 | 3 |  |
| ${ }^{2}$ CAOT 114 | Adobe Acrobat for the Office and the Web | 2 |

${ }^{1}$ Offered Fall semester only.
${ }^{2}$ Offered Spring semester only.

## Computer Science and Information Technology

## Associate Degree Programs

The Computer Science Department offers courses and curricula in several areas of emphasis in the computer field. The student may elect to complete the course work required to transfer to a four-year institution or may complete an occupationally oriented two-year curriculum. Students interested in completing the first two years of a bachelor's degree program should consult a member of the computer science staff or request copies of the transfer curricula from the department chairperson's office.
The department offers three areas of specialization at the associate degree level. They are Programming for Business, Programming for Computer Science, and Computer and Network Technology. Associate degree curricula require the completion of a specific pattern of course work. Any substitutions or variations must have prior approval of the department.
These occupational programs do not necessarily constitute the first two years of a Bachelor's degree transfer program in these fields. Consult a counselor for transfer requirements.

## PROGRAMMING FOR BUSINESS

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
The intent of this degree program is to provide graduates with the skills needed to produce computer programs in a business/industrial environment or transfer to a 4 -year institution.
NOTE: Math 115 or 1 year of high school algebra with a grade of " $C$ " or better is a required prerequisite to becoming a computer science major. Verification required upon request.

UNITS
FIRST SEMESTER
Co Sci 501 Introduction to Computers \& Their Uses ..... 3
Co Sci 575 Programming Fundamentals for
Computer Science ..... 3
${ }^{1}$ Language \& Rationality GE ..... 3
(English composition) 'General Education ..... 6
SECOND SEMESTER
Co Sci $530 \quad$ Personal Computer Application Software ..... 3
Co Sci 572 Intro to Personal Computer Hardware and $\begin{array}{ll}\text { Co Sci } 572 & \text { Intro to Personal Co } \\ & \text { Operating Systems }\end{array}$Or
Co Sci $552 \quad$ Programming in Java ..... 3
Co Sci 547 Introduction to Digital Imaging
Acctg 1 Introduction to Accounting I3THIRD SEMESTER
Co Sci 508 Visual BASIC ..... 3
Co Sci 533 Databases Using Access and SQL ..... 3
Philos 9 Symbolic Logic 1 ..... 3
Math Elective (120 or higher) ..... 3-5
Technical Electives ..... 6

## FOURTH SEMESTER

| Co Sci 541 | Advanced Visual Basic and | 3 |
| :---: | :---: | :---: |
|  | Database Programming |  |
| Co Sci 550 | Website Development Using | 3 |
|  | Dreamweaver and Javascript |  |
| Co Sci 560 | Business Systems Design |  |
|  | Using Oracle Developer | 3 |
|  | Technical Electives | 3 |
|  | ${ }^{1}$ General Education | 3 |

${ }^{1}$ See Catalog, Associate Degree Requirements, Option 2. See Pierce counselor for advisement.

Technical Electives: Choose 12 units from one of the following sequences that will not duplicate the required courses listed above.

1) Advanced Programming - Co Sci 516, Co Sci 536, Co Sci 539, Co Sci 540 and Co Sci 552
2) Web/Network OS - Co Sci 534, Co Sci 548, Co Sci 553, Co Sci 554,

Co Sci 555 and Co Sci 587
3) Information Systems - Acctg 2, Bus 5, Econ 1 and Econ 2

## Certificate Programs

Prerequisites: Math 115 or one year of high school algebra with a grade of "C" or better.
A minimum of 12 units must be taken in the Computer Science Department at Pierce College within the last 5 years.

| CERTIFICATE IN PROGRAMMING FOR BUSINESS |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| ${ }^{1} \mathrm{CoSci} 508$ | Visual BASIC | 3 |
| Co Sci 530 | Personal Computer Application Software | 3 |
| ${ }^{1} \mathrm{Co} \mathrm{Sci} 533$ | Databases Using Access and SQL | 3 |
| ${ }^{1}$ Co Sci 541 | Advanced Visual Basic and |  |
|  | Database Programming | 3 |
| ${ }^{1} \mathrm{CoSci} 560$ | Business Systems Design |  |
|  | Using Oracle Developer | 3 |
| Co Sci 572 | Introduction to Personal Computer |  |
|  | Hardware and Operating Systems | 3 |
|  | Or |  |
| ${ }^{1}$ Co Sci 552 <br> Acctg 1 | Programming in Java | 3 |
|  | Introductory Accounting | 5 |
|  | Total | 23 |
| CERTIFICATE OF ACHIEVEMENT IN PERSONAL COMPUTER APPLICATION SPECIALIST |  |  |
|  |  | UNITS |
| Co Sci 530 <br> ${ }^{1}$ Co Sci 533 | Personal Computer Application Software | 3 |
|  | Databases Using Access and SQL | 3 |
| Co Sci 572 | Introduction to Personal Computer | 3 |
|  | Hardware and Operating Systems |  |
|  | Total | 9 |
| CERTIFICATE OF ACHIEVEMENT IN DATABASE PROGRAMMING SPECIALIST UNITS |  |  |
|  |  |  |
| ${ }^{1}$ Co Sci 508 | Visual BASIC | 3 |
| ${ }^{1} \mathrm{CoSci} 541$ | Advanced Visual Basic and |  |
|  | Database Programming | 3 |
| ${ }^{1}$ Co Sci 560 | Business Systems Design |  |
|  | Using Oracle Developer | 3 |
|  | Total | 9 |

${ }^{1}$ See catalog course description for prerequisites.

## PROGRAMMING FOR COMPUTER SCIENCE

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
The intent of this degree program is to provide graduates with the skills needed to produce computer programs in a technical environment or transfer to a 4year institution.
See a Pierce counselor in the first semester for transfer education advisement. The student must also contact the transfer institution to determine entrance level.
NOTE: Math 115 or one year of high school algebra with a grade of " $C$ " or better is a prerequisite for this program. Verification is required upon request. However Math 262 (Calculus II) is a graduation requirement.

${ }^{1}$ See Catalog, Associate Degree Requirements, Option 2.
See Pierce counselor for advisement.
${ }^{2}$ Satisfies General Education Requirement, Option 2-D2.
Recommendations: Proficiency in typing or keyboarding.
Technical Electives: Choose two classes from the following list:
Co Sci 508, 530, 572, 547, 548, 550, 555, Math 263, 270, 275.

## Certificate Program

All of these courses may be used to apply toward fulfillment of the requirements for an Associate degree in Programming for Computer Science.
Prerequisites: Math 115 or one year of high school algebra with a grade of "C" or better. Verification required upon request.
Completion of the program listed below with a minimum of 15 computer science units taken at Pierce College within the last 5 years.

CERTIFICATE IN PROGRAMMING FOR COMPUTER SCIENCE

| Co Sci 575 | Programming Fundamentals for <br> Computer Science | UNITS |
| :--- | :--- | :---: |
|  |  |  |
| ${ }^{1}$ Co Sci 516 | Beginning Computer Architecture |  |
|  | and Organization | 3 |
| ${ }^{1}$ Co Sci 536 | Introduction to Data Structures | 3 |
| ${ }^{1}$ Co Sci 539 | Programming in C | 3 |
| ${ }^{1}$ Co Sci 540 | Object Oriented Programming in C++ | 3 |
| ${ }^{1}$ Co Sci 552 | Programming in Java | 3 |
|  | Total | 18 |

[^4]
## COMPUTER AND NETWORK TECHNOLOGY

## Associate in Science Degree Program

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
The intent of this program is to produce graduates with the balanced knowledge of hardware and software required to install, operate, maintain and trouble-shoot personal computers and computer networks in a variety of work environments.
Associate in Science graduates will be prepared to install, operate, maintain and trouble-shoot systems and networks for the service divisions of large computer manufactures and computer applications organizations.
NOTE: One year of high school algebra or Math 115 with a grade of "C" or better is a prerequisite for this program. Verification is required upon request.
$\qquad$
FIRST SEMESTER

| $\begin{aligned} & \text { Co Sci } 530 \\ & \text { Co Sci } 572 \end{aligned}$ | Personal Computer Application Software | 3 |
| :---: | :---: | :---: |
|  | Introduction to Personal Computer |  |
|  | Hardware and Operating Systems | 3 |
| ${ }^{1} \mathrm{CoSci} 587$ | Introduction to Computer Networks | 3 |
| Electrn 4A, 4B | Fundamentals of Electronics I | 4 |
|  | General Education* | 3 |
| SECOND SEMESTER |  |  |
| ${ }^{1}$ Co Sci 534 | Operating Systems | 3 |
| ${ }^{1} \mathrm{Co}$ Sci 581 | Personal Computer Upgrades and Repair | 3 |
| ${ }^{1}$ Co Sci 514 | Network Operations and Systems | 3 |
| ${ }^{1}$ Co Sci 578 | Routing Systems Design and Programming | 3 |
| Electrn 6A, 6B | Fundamentals of Electronics II | 4 |
| THIRD SEMESTER |  |  |
| ${ }^{1}$ Co Sci 535 | Network Configuration and Control Systems | 3 |
| ${ }^{1} \mathrm{CoSci} 537$ | Routing Systems, Devices and Protocols | 3 |
|  | Technical Electives | 6 |
|  | General Education* | 3 |
| FOURTH SEMESTER |  |  |
|  | Technical Electives | 6 |
|  | General Education* | 9 |

${ }^{1}$ See course description for prerequisites. Program does not necessarily constitute first two years of a bachelor's program.

* General Education Requirements: Please see Associate Degree Requirements, Option 2 and consult your Pierce counselor.
Technical Electives: Choose 12 units from any of the courses listed below:

1) Programming: Co Sci 508, 533, 539, 541, 560
2) Web Development: Co Sci 553, 554, 547, 548, 550, 555
3) Elect $8 A, 8 B, 44,45,72 A, 72 B, 74 A, 74 B$.

## Certificate of Achievement in Personal Computer Service Technology

This program was developed in cooperation with the Computer Technology advisory committee for students who wish to take a technical program to prepare themselves for employment in the computer technology field.
Prerequisite: Math 115 or one year of high school algebra with a grade of "C" or better. Verification required upon request.

| Co Sci 530 | Personal Computer Application Software | 3 |
| :--- | :--- | :---: |
| Co Sci 572 | Introduction to Personal Computer |  |
|  | Hardware and Operation Systems | 3 |
| ${ }^{1}$ Co Sci 581 | Personal Computer Upgrade and Repair | 3 |
| ${ }^{1}$ Co Sci 587 | Introduction to Computer Networks | 3 |
|  | Total | 12 |

## Certificate of Achievement in Network Technology

This program was developed in cooperation with the Computer Technology advisory committee for students who wish to take a technical program to prepare themselves for employment in the computer network technology field.

|  |  | UNITS |
| :--- | :--- | :---: |
| ${ }^{1}$ Co Sci 587 | Introduction to Computer Networks | 3 |
| ${ }^{1}$ Co Sci 534 | Operating Systems | 3 |
| ${ }^{1}$ Co Sci 514 | Network Operations and Systems | 3 |
| ${ }^{1}$ Co Sci 535 | Network Confirguration and |  |
|  | Control Systems | 3 |
|  | Total | 12 |

## Certificate of Achievement in Routing Technology

This program is designed for students who desire to extend their existing network training or background to further focus on the prominent routing technology, preparing them for employment in this field.

|  |  |  |
| :--- | :--- | :---: |
| ${ }^{1}$ Co Sci 587 | Introduction to Computer Networks | 3 |
| ${ }^{1}$ Co Sci 578 | Routing Systems Design and Programming | 3 |
| ${ }^{1}$ Co Sci 537 | Routing Systems, Devices and Protocols | 3 |
|  | Total | 12 |

## Certificate of Achievement in Website Development

This program was designed for students who wish to develop skills which will enable them to create and administer web sites using various server side programming languages and prepare for employment in this field.

| ${ }^{1}$ Co Sci 534 | Operating Systems |
| :--- | :--- |
| ${ }^{1}$ Co Sci 553 | Web Page Development |
| ${ }^{1}$ Co Sci 554 | Server-Side Programming for the <br> World Wide Web |
|  | Co Sci 547 <br>  <br>  <br>  <br>  <br> Introduction to Digital Imaging <br> Using Photoshop <br> Total |

UNITS
3
3
3
3
12
${ }^{1}$ See catalog course description for prerequisites.

## Dance

## Certificate of Achievement -

 Visual And Performing Arts Through Dance| Art 101 | Survey of Art History I | 3 |
| :--- | :--- | :---: |
|  | Or |  |
| Art 103 | Art Appreciation I | 3 |
| Music 101 | Fundamental of Music | 3 |
| Music 111 | Or | Music Appreciation I |
| Dance 802 | Modern Dance II | 3 |
| Theater 262 | Special Projects | 3 |
| Dance 814 | Dance Production | 2 |
| Plus 4 units from the following: | 2 |  |
| Dance 401 | International Folk Dance |  |
| Dance 431 | Modern Dance | 1 |
| Dance 434 | Ballet | 1 |
| Dance 437 | Jazz Dance | 1 |
| Dance 440 | Social Dance | 1 |
| Dance 446 | Tap Dance | 1 |

## Certificate of Achievement - Dance

|  |  | UNITS |
| :--- | :--- | :---: |
| Dance 801 | Modern Dance I | 3 |
| Dance 802 | Modern Dance II | 3 |
| Dance 803 | Modern Dance III | 3 |
|  | Or |  |
| Dance 819 | Choreography | 3 |
| Dance 814 | Dance Production | 2 |
| Dance 401 | International Folk Dance | 1 |
|  | Or | 1 |
| Dance 437 | Jazz Dance | 1 |
| Dance 434 | Ballet | 1 |
| Dance 440 | Social Dance |  |
|  | Or | 1 |
| Dance 446 | Tap Dance | 1 |
| Phys Ed 225 | Yoga Skills | 2 |
| Theater 262 | Special Projects |  |

## Electronics

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Representatives from the electronics industry and Pierce College faculty have collaborated to design this course of study. Completion of this program prepares the student for employment as an electronics technician.

TECHNICAL REQUIREMENTS


For additional electives, see Electronics Department Advisor. See Catalog descriptions for prerequisites and corequisites.
${ }^{1}$ See Associate Degree Requirements, Option 2.
${ }^{2}$ Meets General Education Requirements, Option 2, Section A.
*Please refer to the discipline webpage: www.piececollege.edu/departments/electronics

## Certificate Programs

In collaboration with industry, the College staff has developed the program as shown below which leads to a Certificate in Electronics with a specialization option in Digital, Communications, or Analog electronics. The certificate program has been designed to provide students with marketable skills at the completion of 24 units. If they wish, students may continue their education and obtain an Associate in Science Degree. To complete the Certificate Program, the core courses and one specialization option must be completed.

CERTIFICATE PROGRAM CORE REQUIREMENTS:

|  |  | UNI |
| :--- | :--- | ---: |
| Electron 4A | Fundamentals of Electronics IA | 3 |
| Electron 4B | Fundamentals of Electronics IB | 1 |
| Electron 6A | Fundamentals of Electronics IIA | 3 |
| Electron 6B | Fundamentals of Electronics IIB | 1 |
| Electron 8A | Electron Devices A | 3 |
| Electron 8B | Electron Devices B | 1 |
| Electron 28 | Electronic and Electro-mechanical Drafting | 2 |
| Electron 81 | Projects Laboratory (1 Unit repeated twice) | 2 |

## Certificate Specialization Options:

| DIGITAL OPTION: |  |  |
| :---: | :--- | :---: |
| Electron 72A | Digital Circuits IA | 3 |
| Electron 72B | Digita lircuits IB | 1 |
| Electron 74A | Microprocessors | 3 |
| Electron 74B | Microprocessors Laboratory | 1 |
| COMMUNICATIONS OPTION: |  |  |
| Electron 44 | Communications Electronics | 3 |
| Electron 45 | Communications Electronics Laboratory | 1 |
| Electron 60 | Microwave Fundamentals | 3 |
| Electron 61 | Microwave Fundamentals Laboratory | 1 |
| ANALOG OPTION: |  |  |
| Electron 26 | Linear Circuits | UNITS |
| Electron 63 | Circuit Analysis Laboratory | 3 |
| Electron 48A | Integrated Circuits | 1 |
| Electron 48B | Integrated Circuits Laboratory | 3 |
|  |  | 1 |

## English - English as a Second Language

## Certificate of Achievement

This certificate verifies the student's ability to succeed in Mainstream English courses by completing a minimum of 13 units in the Pierce College English as a Second Language Program and 3 units of English Composition in the English 21, 28, 101 sequence.

## REQUIRED COURSES

13 units from:
English $84 \quad$ College English as a Second Language I 5
English $85 \quad$ College English as a Second Language II 5
English $86 \quad$ College English as a Second Language III 5
English $87 \quad$ Advanced ESL: Reading and Vocabulary 3
3 units from:
English 21 English Fundamentals 3
English 28 Intermediate Reading and Composition 3
English 101 College Reading and Composition 3

## French

The main objective of the French program is to enable the students to acquire competence in the ability to understand, speak, read, and write French, and to develop an understanding and appreciation of the multicultural French speaking world.
Students are placed in French courses according to their years of previous study. In general one year of high-school French is equivalent to one semester at Pierce. Native speakers are encouraged to enroll in French 4, 5, or 6.
All French courses are taught primarily in the language. However; the instructor may choose to clarify certain concepts in English when necessary. By the end of the first year, students are able to use the basic structure of the language and the practical vocabulary learned to converse on everyday topics, as well as to read and write at an elementary level.

French 3 combines with French 8 (Conversational French) to increase oral proficiency and also continues to raise the students' ability to read and write.
In French 4, 5, and 6, students gradually acquire more ease in expressing themselves orally and in writing. Combining a review of grammar with discussions and analysis of literary texts of increasing difficulty, these courses give students a broad overview of France and French-speaking countries and prepare them to live abroad.

## International Education

Students are encouraged to participate in the International Education summer program of study in Paris offered by Los Angeles Pierce College.

## Career Opportunities

French is adapted to careers in international business or trade, telecommunications, fashion, the gourmet food industry, medical research, international law, diplomacy and the foreign service, aerospace technology, as well as in the arts and the humanities.

## Associate in Arts Degree

## REQUIRED COURSES

| Three courses chosen from the following: |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { French 1, 2, } 3 \\ & 4,5 \text {, or } 6 \end{aligned}$ | Elementary, Intermediate, |  |
|  | Advanced French | 15 |
|  | And |  |
| French 101 | French Language Laboratory | 2 |
|  | (2 semesters) |  |
| French 8 | Conversational French | 2 |
|  | Or |  |
| French 81 | Practical French for Business | 3 |
|  | Total | 19 or 20 |

## RECOMMENDED ELECTIVES:

(These courses can also be applied towards General Education requirements under Associate Degree Requirements, Option 3): Linguistics 1; English 203, 204; Anthropology 102; History 50; Art 102, 103; Humanities 12, 13.

## Geographic Information Systems (GIS)

## Certificate of Achievement

The GIS Certificate is designed to provide the skills and knowledge necessary for immediate entry-level employment for persons interested in Geographic Information Systems (GIS) and automated mapping technology. It will also provide the needed upgrading and retraining of current employees in this rapidly expanding technological field.

REQUIRED COURSES

| Geog 31/GIS 31 | Introduction to |  |
| :--- | :--- | :--- |
|  | Geographic Information Systems | 3 |
| Geog 32/GIS 32 | GIS Applications: Arc View | 3 |
| Geog 36/GIS 36 | GIS Cartography and |  |
|  | Base Map Development | 3 |
| Geog 38/GIS 38 | Spatial Analysis and Modeling | 3 |
| One 3-unit course from the Recommended Courses List | 3 |  |
| One 1-unit course from the Recommended Courses List | 1 |  |
|  |  |  |
| GNDED COURSES |  |  |
| Geog 39/GIS 39 | GIS for Science, Business, and Government | 3 |
| Geog 33/GIS 33 | Intermediate GIS Applications: Arc View | 3 |
| Geog 37/GIS 37 | Introduction to |  |
| Geog 40/GIS 40 | Global Positioning System (GPS) | 1 |
| GIS Internship | 1 |  |

## Geography

## Certificate of Achievement

REQUIRED COURSES

|  |  | UNITS |
| :---: | :---: | :---: |
| Geography 1 | Physical Geography | 3 |
| Geography 2 | Cultural Elements of Geography | 3 |
|  |  |  |
| Geography 7 | World Regional Geography | 3 |
| Geography 15 | Physical Geography Laboratory | 2 |
| Plus 8 additional units from |  |  |
| Geography 3 | Introduction to Weather and Climate | 3 |
| Meteorology 3 | or ${ }_{\text {or }}$ Introduction to Weather and Climate | 3 |
| Geography 8 | Introduction to Urban Geography | 3 |
| Geography 9 | People and the Earth's Ecosystem | 3 |
| Geography 14 | Geography of California | 3 |
| Geography 20 | Field Studies in California Geography | 6 |
| Geography 21 | Introduction to the Geography of the |  |
|  | United States and Canada | 3 |
| Geography 22 | Introduction to the |  |
|  | Geography of Latin America | 3 |
| Geography 31 | Introduction to |  |
|  | Geographic Information Systems | 3 |
| Geography 32 | GIS Applications: ArcView | 3 |
| Geography 33 | Intermediate GIS Applications: ArcView | 3 |
| Geography 37 | Introduction to |  |
|  | Global Positioning Systems (GPS) | 1 |

## Geology

## Certificate of Achievement

REQUIRED COURSES

| Geology 1 | Physical Geology | 3 |
| :--- | :--- | :---: |
| Geology 6 | Physical Geology Laboratory | 2 |
| Plus 10 additional units from |  |  |

Plus 10 additional units from
Geology 2 Earth History
Geology 7 Earth History Laboratory
Geology 10 Introduction to Environmental Geology or
Env Sci 7 Introduction to Environmental Geology 3
Geology 11 Introduction to Geology:
Our National Parks and Monuments 3
Geology 12 Introduction to the Geology of California
Geology 17 The Age of Dinosaurs
Geology 22 Geomorphology
mistry 1
$\begin{array}{lll}\text { Physics } 101 & \text { Physics for Engineers and Scientists I } & 5\end{array}$

## Industrial Technology Automotive Service Technology

## Associate in Science Degree

Faculty Advisor: T. H. Rosdahl
Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

|  |  | NIT |
| :---: | :---: | :---: |
| AST 1 | Automotive Engines | 5 |
| AST 2 | Suspension, Brakes and Power Systems | 5 |
| AST 3 | Engine Diagnostics and Tune-Up | 5 |
| AST 4 | Starting and Charging Systems/ Automotive Electrical Circuits | 5 |
| AST 5 | Standard Transmissions, Clutches, Drive Lines and Differentials | 3 |
| AST 6 | Automatic Transmission Electronic Diagnostics and Repair | 5 |
| AST 7 | Air Conditioning | 3 |
| AST 20 | Advanced Engine Diagnostics and Performance | 4 |
| AST 23 | Enhanced Clean Air Car | 4 |
| AST 32 | Automotive Service Technology Projects Laboratory - Chassis and Suspension Systems | 1 |
| AST $34^{2}$ | Automotive Service Technology <br> Projects Laboratory Electrical Circuits | 2 |
| AST 36 | Automotive Service Technology Laboratory Standard Transmissions, Clutches, Drive Lines and Differentials/Air Conditioning | 1 |

General Education
Courses selected from College Catalog to meet degree requirements. See Associate Degree Requirements, Option 2

Plus 3 additional units from the following Automotive courses:
AST 41
Precision Lower-End Engine
AST 42 Performance Chassis and Suspension 3 Systems
AST 43 Dyno Tuning for Performance 3
AST $44 \quad$ Precision Upper-End Engine Assembly 3
AST $45 \quad$ Chassis, Suspension and Interior
Fabrication Techniques
${ }^{1}$ AST 52 may be substituted for AST 32.
${ }^{2}$ AST 54 may be substituted for AST 34.

## Certificate Program

For students who wish to complete a minimum of classes in one year to prepare for employment. A minimum of 44 units is required.

|  |  | UNITS |
| :---: | :---: | :---: |
| AST 1 | Automotive Engines | 5 |
| AST 2 | Suspension, Brakes and Power Systems | 5 |
| AST 3 | Engine Diagnostics and Tune-Up | 5 |
| AST 4 | Starting and Charging Systems/ Automotive Electrical Circuits | 5 |
| AST 5 | Standard Transmissions, Clutches, Drive Lines and Differentials | 3 |
| AST 6 | Automatic Transmission Electronic Diagnostics and Repair | 5 |
| AST 7 | Air Conditioning | 3 |
| AST 20 | Advanced Engine Diagnostics and Performance | 4 |
| AST 23 | Enhanced Clean Air Car | 4 |
| AST 32 ${ }^{1}$ | Automotive Service Technology Projects Laboratory- Chassis and Suspension Systems | 1 |
| AST 34 | Automotive Service Technology Projects Laboratory Electrical Circuits | 2 |
| AST 36 | Automotive Service Technology Laboratory Standard Transmissions, Clutches, Drive Lines and Differentials/ Air Conditioning | 1 |


| Plus 3 additional units from the following Automotive courses: |  |  |  |
| :--- | :--- | ---: | :---: |
| AST 41 | Precision Lower-End Engine Blueprinting | 3 |  |
| and Assembly |  |  |  |

${ }^{1}$ AST 52 may be substituted for AST 32.
${ }^{2}$ AST 54 may be substituted for AST 34.

## Certificate of Achievement -

Automotive Light Service Technician
This certificate program prepares the student for employment in a service station, tire store, brake/front end shop, or a general service garage.

| AST 2 | Suspension, Brakes and Power Systems | 5 |
| :--- | :--- | :--- |
| AST 4 | Starting and Charging Systems/Automotive |  |
|  | Electrical Circuits | 5 |
| AST 7 | Air Conditioning | 3 |

## Certificate of Achievement -

## Automotive Emission Specialist

This certificate program prepares the student to become a California Smog Check Technician.

|  |  | UNITS |
| :--- | :--- | :---: |
| AST 3 | Engine Diagnosis and Tune-Up | 5 |
| AST 20 | Automotive Electronic Computer <br>  <br> Control Systems | 3 |
| AST 21 | Computer-Controlled Electronic Fuel <br>  <br> AST 23 | Injection Systems <br> Enhanced Area Clean Air Car Course |
|  | 2na |  |

## Certificate of Achievement -

## Automotive Powertrain Specialist

This certificate program prepares the student to become an Automotive Heavy Line Technician.

|  |  | UNITS |
| :--- | :--- | :---: |
| AST 1 | Automotive Engines | 5 |
| AST 5 | Standard Transmissions, Clutches, Drive |  |
|  | Lines, and Differentials | 3 |
| AST 6 | Automatic Transmissions | 5 |

## Certificate of Achievement -

## Automotive Performance Applications

The Automotive Performance Application certificate is designed for students who desire advanced in-depth instruction in various aspects of the automoble. This certificate helps students prepare for entrance and advancement in the automotive performance industry.

|  | Units |  |
| :--- | :--- | :---: |
| AST 41 | Precision Lower-End Engine Blueprinting <br> and Assembly | 3 |
| AST 42 | Performance Chassis and |  |
|  | Suspension Systems | 3 |
| AST 43 | Dyno Tuning For Performance | 3 |
| AST 44 | Precision Upper-End Engine Assembly | 3 |
| AST 45 | Chassis, Suspension and Interior <br> Fabrication Techniques | 3 |

# Industrial Technology Drafting - Mechanical 

Associate in Arts Degree

Faculty Advisor: R. Smetzer
Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This associate degree prepares the student for entry level employment as a draftsperson in engineering and manufacturing industries, as well as for positions existing with federal, state, and local government agencies. With the addition of practical industrial experience, draftspersons may eventually become designers in their chosen area of concentration.

## FIRST SEMESTER

Ind Tek 105 Industrial Print Reading 3
Ind Tek 110 Mechanical Computer-Assisted Drafting I 3
Ind Tek 115 Mechanical Computer-Assisted Drafting II 3
Ind Tek 130 Technology of Metal Machining Process I 3
General Education 3

## SECOND SEMESTER

Ind Tek 140 Fundamentals of CNC Technology 3
${ }^{1}$ Math $146 \quad$ Technical Mathematics II
${ }^{2}$ Ind Tek $205 \quad$ Technical Descriptive Geometry
Ind Tek 210 Mechanical Computer-Assisted Drafting III
Ind Tek 215 Mechanical Computer-Assisted Drafting IV General Education

## THIRD SEMESTER

Ind Tek 310 Mechanical Computer-Assisted Drafting V 3
Ind Tek 315 Mechanical Computer-Assisted Drafting VI 3
Ind Tek 346 CAM Programming Using Surfcam 3 General Education

## FOURTH SEMESTER

Ind Tek 410 Mechanical Computer-Assisted Drafting VII 3 Ind Tek 415 Mechanical Computer-Assisted Drafting VIII 3 General Education
${ }^{1}$ Math 115 may be substituted for Math 146.
${ }^{2}$ Math 120 may be substituted for Ind Tek 205.
Carefully study Associate Degree in Requirements, Option 2 in the course catalog when considering alternative Gen. Ed courses.

## Certificate of Achievement Basic Drafting-Mechanical

The Basic Drafting-Mechanical certificate program provides the vocational student with training in the foundational aspects of mechanical computerassisted drafting.

## Certificate of Achievement Advanced Drafting-Mechanical

The Advanced Drafting-Mechanical certificate program gives the occupational student training in the upper-level skills of mechanical computer-aided drafting.

Ind Tek 205
Ind Tek 310
Ind Tek 315
Ind Tek 410
Ind Tek 415

Technical Descriptive Geometry
UNITS 3 3 3
$\begin{array}{ll}\text { Mechanical Computer-Assisted Drafting V } & 3 \\ 3\end{array}$
Mechanical Computer-Assisted Drafting VI 3
Mechanical Computer-Assisted Drafting VII 3
Mechanical Computer-Assisted Drafting VIII 3

| Ind Tek 105 | Industrial Print Reading | 3 |
| :--- | :--- | :--- |
| Ind Tek 110 | Mechanical Computer-Assisted Drafting I | 3 |
| Ind Tek 115 | Mechanical Computer-Assisted Drafting II | 3 |
| Ind Tek 210 | Mechanical Computer-Assisted Drafting III | 3 |
| Ind Tek 215 | Mechanical Computer-Assisted Drafting IV | 3 |

$$
\begin{array}{llc}
\text { Ind Tek 105 } & \text { UNITS } \\
\text { Ind Tek 110 } & \text { Mechanical Computer-Assisted Drafting I } & 3 \\
\text { Ind Tek 115 } & \text { Mechanical Computer-Assisted Drafting II } & 3 \\
\text { Ind Tek 210 } & \text { Mechanical Computer-Assisted Drafting III } & 3 \\
\text { Ind Tek 215 } & \text { Mechanical Computer-Assisted Drafting IV } & 3
\end{array}
$$

## Certificate of Achievement - Machine Shop Technology

For students who wish to complete technical coursework in the Machine Shop program and prepare for employment as a conventional machine tool operator. Courses may be completed in any order, but recommended preparation should be met.

| IndTek 105 | Industrial Print Reading | 3 |
| :--- | :--- | ---: |
| Ind Tek 130 | Technology of Metal Machining Processes I | 3 |
| Ind Tek 230 | Technology of Metal Machining Processes II | 3 |
| Ind Tek 330 | Technology of Metal Machining Processes III | 3 |
| Plus 3 additional units from: |  |  |
| Ind Tek 332 | Projects Laboratory in |  |
|  | Metal Machining Processes I |  |
| Ind Tek 140 | Fundamentals of CNC Technology | 3 |
| Math 146 | Technical Mathematics II | 3 |
|  |  |  |

## Certificate of Achievement CNC Operator

For students who wish to complete technical coursework in the Machine Shop/CNC program and prepare for employment as a cnc machine tool operator. Courses may be completed in any order, but recommended preparation should be met.

|  |  | UNITS |
| :---: | :---: | :---: |
| IndTek 105 | Industrial Print Reading | 3 |
| Ind Tek 130 | Technology of Metal Machining Processes I | 1 |
| Ind Tek 140 | Fundamentals of CNC Technology | 3 |
| Ind Tek 230 | Technology of Metal Machining Processes II | 11 |
| Plus 3 additional units from: |  |  |
| Ind Tek 244 | CNC Programming and Machine Operation - Lathe | 3 |
| Ind Tek 248 | CNC Programming and Machine Operation - Mill | 3 |

## Certificate of Achievement -

## CNC Programming

For students who wish to complete technical coursework in Numerical Control and prepare for entry-level employment as a cnc machine tool programmer. Courses may be completed in any order, but recommended preparation should be met.

|  |  | UNITS |
| :---: | :---: | :---: |
| Ind Tek 244 | CNC Programming and |  |
|  | Machine Operation - Lathe | 3 |
| Ind Tek 248 | CNC Programming and |  |
|  | Machine Operation - Mill | 3 |
| Ind Tek 346 | CAM Programming Using Surf CAM | 3 |
| Math 146 | Technical Mathematics II | 3 |
| Plus 3 additional units from: |  |  |
| Ind Tek 444 | Projects Laboratory CNC Lathe Programming | 3 |
| Ind Tek 448 | Projects Laboratory CNC Mill Programming | 3 |
| Ind Tek 931 or | Cooperative Work Experience Education | 3-4 |

## Credit By Examination

Students may enter the program at a level appropriate to their previous industrial experience and training. See Credit by Exam Policies in this catalog.

## Industrial Technology - Welding

Faculty Advisor: R. Smetzer

The Welding program will provide intensive vocational training in all common types of welding. The student has the opportunity to learn oxy-acetylene, shielded metal arc, gas tungsten arc, and gas metal arc welding methods and can earn a Certificate of Achievement.

## Certificate of Achievement - <br> \section*{Basic Welding}

The Basic Welding certificate program provides the vocational student with training in the foundational skills of oxy-acetylene and shielded metal arc welding.

|  | UNITS |  |
| :--- | :--- | :---: |
| Ind Tek 105 | Industrial Print Reading | 3 |
| Ind Tek 161 | Oxy-Acetylene Welding I | 3 |
| Ind Tek 162 | Oxy-Acetllene Welding II | 3 |
| Ind Tek 261 | Arc Welding I | 3 |
| Ind Tek 262 | Arc Welding II | 3 |

## Certificate of Achievement - <br> Advanced Welding

The Advanced Welding certificate program gives the occupational student training in the skills of gas tungsten arc welding, gas metal arc welding, and flux core arc welding.

|  |  | UNITS |
| :--- | :--- | :---: |
| Math 146 | Technical Mathematics II | 3 |
| Ind Tek 361 | Inert Gas Arc Welding I | 3 |
| Ind Tek 362 | Inert Gas Arc Welding II | 3 |
| Ind Tek 461 | Advanced Arc Welding I | 3 |
| Ind Tek 462 | Advanced Arc Welding II | 3 |

## Italian

The main objective of the Italian program is to enable the students to acquire competence in understanding, speaking, reading and writing the Italian language. The objective of the program is also to develop an understanding and appreciation of the culture, history and literature of Italy.
Students are placed in Italian courses according to their previous study. In general one year of high-school Italian is equivalent to one semester at Pierce. Native speakers are encouraged to enroll in Italian 4, 5, or 6.
All Italian courses are taught primarily in the language. However, the instructor may choose to clarify certain concepts in English when necessary. By the end of the first year, students are able to use the basic structure of the language and the practical vocabulary learned to converse on everyday topics, as well as to read and write at an elementary level.
Italian 3 combines with Italian 8 (conversational Italian) to increase oral proficiency and also continues to raise the students ability to read and write.
In Italian 4, 5, 6, students gradually acquire more ease in expressing themselves orally and in writing. Combining a review of grammar with discussion and analysis of literary texts of increasing difficulty, these courses give students a broad overview of Italy and the Italian people and prepare students to live abroad.

## International Education

Students are encouraged to participate in the International Education summer program of study in Florence offered by Los Angeles Pierce College.

## Career Opportunities

Italian will enhance careers in international business or trade, fashion, medical research, the gourmet food industry. Italian is especially desirable for students of classic or opera music, art and humanities.

## Associate in Arts Degree

## REQUIRED COURSES

## UNITS

Three courses chosen from the following:
Italian 1, 2, 3, Elementary, Intermediate, 15
4, 5, or 6 Advanced Italian
And
Italian $8 \quad$ Conversational Italian 2
Italian $10 \quad$ Italian Civilization and Culture 3
Total 20

## RECOMMENDED ELECTIVES:

(These courses can also be applied towards General Education requirements under Associate Degree Requirements, Option 3) Linguistics 1; English 203, 204; History 50; Anthropology 102; Art 102, 103; Humanities 12, 13.
Also recommended: International Business 1 .

## Journalism

See also Photojournalism

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Journalism courses are taken by those planning careers in communications, i.e. reporting, broadcast news and public relations. Because of its emphasis on concise, clear writing, journalism is also one the most popular majors for prelaw students.
Students will learn how to recognize news, conduct interviews and work on the college print and online publications. Special emphasis is placed on meeting deadlines, accuracy and fairness.
Jobs in the field of journalism almost always require a bachelor's degree, though it does not necessarily have to be in journalism.

REQUIRED AREA SUBJECTS

|  |  | UNITS |
| :---: | :---: | :---: |
| Broadcast 1 | Fundamentals of Radio and |  |
|  | Television Broadcasting | 3 |
| Co Sci 551 | Introduction to the Internet and the |  |
|  | World Wide Web | 1 |
|  | or |  |
| Lib Sci 102 | Internet Research Methods | 1 |
| Journal 100 | Social Values in Mass Communications | 3 |
| ${ }^{1}$ Journal 101 | Collecting and Writing News | 3 |
| Journal 106 | Mechanics of Expression | 3 |
| Journal 202 | Advanced Newswriting | 3 |
| Journal 218 | Practical Editing | 3 |
| ${ }^{2}$ Photo 10 | Beginning Photography | 3 |
| Photo 20 | Beginning Photojournalism | 4 |
| AREA ELECTIVE SUBJ | S (6 UNITS MINIMUM) |  |
|  |  | UNITS |
| Art 500 | Introduction to Design | 3 |
| Co Sci 501 | Introduction to Computers \& Their Uses | 3 |
| Coop Ed | Cooperative Work Experience Education | 3 |
| English 101 | College Reading and Composition I and/or | 3 |
| English 102 | College Reading and Composition II | 3 |
| Geography 2 | Cultural Elements of Geography | 3 |
| Journal 217 | Publication Laboratory | 2 |
| Journal 219 | Techniques for Staff Editors | 1 |
| Photo 11 | Advanced Photography | 4 |
| Photo 17 | Introduction to Color Photography | 3 |
| Photo 21 | News Photography | 4 |
| Poli Sci 1 | The Government of The United States | 3 |
| Poli Sci 7 | Contemporary World Affairs | 3 |
| Pub Rel 1 | Principles of Public Relations | 3 |
|  | or |  |
| Mgmt 6 | Public Relations | 3 |

## GENERAL EDUCATION - SELECT 12 UNITS.

## See Associate Degree Requirements section.

${ }^{1}$ Journal 101 meets the Associate Degree general education requirement of section D-1.
${ }^{2}$ Photo 10 meets the Associate Degree general education requirement of Section C

## Certificate of Achievement

This certificate provides the student with the fundamentals of journalism print and broadcast alike. In addition to surveying the mass media as a whole, instruction gives a student the ability to recognize what determines news, how to operate a camera and develop film, and practical experience taking assignments, conducting interviews and writing stories for print, broadcast and online.

REQUIRED COURSES

| Journal 100 | Social Values in Mass Communication | 3 |
| :--- | :--- | :--- |
| Journal 101 | Collecting and writing News | 3 |
| Journal 202 | Advanced Newswriting | 3 |
| Journal 217 | Publication Laboratory <br> Photo 10 <br> Beginning Photography | 2 |
| $\mathbf{3}$ units from: |  | 3 |
| Art 501 |  |  |
| Broadcast 1 | Beginning Two-Dimensional Design | 3 |
|  | Fundamentals of Radio and |  |
| Co Sci 501 | Tevision Broadcasting | 3 |
| Geography 2 | Cultuduction te Computers \& Their Uses | 3 |
| Journal 106 | Mechanics of Expression | 3 |
| Poli Sci 1 | The Government of the United States | 3 |
| Poli Sci 7 | Contemporary World Affairs | 3 |
|  | Con | 3 |

## Languages (Modern)

## Associate in Arts Degree

Associate in Arts Degree programs in the different languages are listed separately under the following headings:

- American Sign Language/Interpreting
- French
- Italian
- Spanish

The Associate in Arts Degree in language may be used as undergraduate preparation for transfer to a Baccalaureate program at a four-year institution. It can also serve as proof of demonstrated competence in another language, and thus expand job opportunities in international business and trade, travel, translating, teaching, and government. Another language also provides valuable background for those pursuing studies in art, music, cinema, literature, and history.

## Latin American Studies

## Faculty Advisor

Prof. Richard Mc Millan Phone 710-2893 Faculty Office 3003
The considerable value of an understanding of Latin America is generally evident today. The Latin American Studies Program offers a broad and flexible interdisciplinary approach designed to provide a comprehensive understanding of Latin America. The curriculum leads to the Associate in Arts degree with a major in Latin American studies that transfers to private and public four-year colleges and universities.
This major can lead to careers in government, foreign service, law, international business, journalism and many other fields after obtaining the Bachelor of Arts and/or Master of Arts degrees.
The following areas of knowledge are central to the Associate's degree in Latin American studies:

- knowledge and understanding of the major historical, cultural, social, political, and economic problems facing the Latin American community;
- knowledge of chief historical factors that gave rise to existing institutions and processes;
- an informed awareness of literature, art, and music in Latin America, including familiarity with the work of several recognized Latin American artists and authors.

In addition, students completing the degree in Latin American studies are expected to acquire;

- reading and speaking ability in Spanish;
- the ability to engage in thoughtful dialogue about Latin America with educated Latin Americans;
- the ability to locate Latin American ideas, historical events, and cultural phenomena in the Latin American context from which they originate; and
- the ability to communicate competently in effective English prose.


## Associate in Arts Degree

## REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE

Satisfaction of the regular transfer and college requirements for the Associate Degree. Contact the Counseling Office for additional information.

1. Demonstrated proficiency in Spanish (successful completion of Spanish 4 or higher, Spanish 101, and Spanish 27).
2. A total of 24 hours from designated courses. Of these 24 hours, 9 must be in the area of social sciences (History $5 \& 6$ and Spanish 10) and 6 in the area of humanities (Spanish 12, 15, 25, or 26) with the remaining 9 in Spanish proficiency courses.
3. In addition, students may elect to take some of the breadth courses offered in the college including Anthropology 102 and Geography 2 or 10.
4. Latin American studies majors are strongly encouraged to include a study abroad semester or summer in their academic program. For further information concerning these programs abroad, contact Dean Paul Whalen in Academic Affairs at 719-6444.

| REQUIRED CORE CURRICULUM |  |  |
| :---: | :---: | :---: |
|  |  | UNITS |
| History 5 | History of the Americas I | 3 |
| History 6 | History of the Americas II | 3 |
| Spanish 4 | Intermediate Spanish II or higher | 5 |
| Spanish 10 | Latin-American Civilization | 3 |
| Spanish 27 | Cultural Awareness through |  |
|  | Advanced Conversation | 3 |
|  | or |  |
| Spanish 8 | Conversational Spanish | 2 |
| Spanish 101 | Spanish Language Laboratory | 1 |
| Two courses fro | the following: | 6 |
| Spanish 12 | Contemporary Mexican Literature | 3 |
| Spanish 15 | Great Books of Latin American Literature | 3 |
| Spanish 16 | Mexican Civilization | 3 |
| Spanish 25 | Spanish American Short Story in Translation | , 3 |
| Spanish 26 | Understanding Latin America through Film | 3 |
| Spanish 65 | Mexican Literature and Culture | 3 |
| RECOMMENDED BREADTH ELECTIVES |  |  |
|  |  | UNITS |
| Anthro 102 | Human Ways of Life: Cultural Anthropology | 3 |
| Geography 2 | Cultural Elements of Geography | 3 |
| Geography 10 | Geography of the Americas | 3 |
| Geography 22 | Introduction to Geography of Latin America |  |

## Certificate of Achievement Latin American Studies

This certificate offers students a broad background encompassing historical, cultural, linguistic, and geographic aspects of Latin America.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Spanish 4 | Intermediate Spanish II | 5 |
| Spanish 10 | Latin American Civilization | 3 |
| Spanish 26 | Understanding Latin America Through Film | 3 |
| Spanish 15 | Great Books of Latin America | 3 |
| Plus one of the following: |  |  |
| Spanish 8 | Conversational Spanish | 2 |
| Spanish 12 | Contemporary Mexican Literature | 3 |
| Spanish 25 | Spanish American Short Story in Translation | 3 |

## Certificate of Achievement - <br> Mexican Studies

This certificate provides the student with the basic understanding of contemporary Mexico and its peoples, as well as an understanding of the major historical, cultural, social, political, and economic problems facing the Mexican community.

## REQUIRED COURSES

|  |  | UNI |
| :--- | :--- | ---: |
| Spanish 4 | Intermediate Spanish II | 5 |
| Spanish 12 | Contemporary Mexican Literature | 3 |
| Spanish 16 | Mexican Civilization | 3 |
| Spanish 26 | Understanding Latin America Through Film | 3 |
| Spanish 65 | Mexican Literature and Culture | 3 |

## Liberal Arts

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program is designed for students who have not yet decided on a major field of study or who wish to sample a variety of subjects. The student must complete at least 30 semester units of general education requirements as listed in Associate Degree Requirements, Option 3.
In addition, 18 semester units of degree-applicable courses are required. These may be taken in a variety of subject areas. A total of 60 units are required for the degree, of which 36 must be CSU transferable.

## Mathematics

## Certificate of Achievement

A Certificate of Completion in Mathematics will be awarded upon the satisfactory completion of at least 15 units as indicated below. At least 10 of the 15 units must be completed at L.A. Pierce College. This program gives a two-year, in-depth exposure into the field of Mathematics.

REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Math 261 | Calculus 1 | 5 |
| Math 262 | Calculus 2 | 5 |

Note: AP Calculus $A B$ and/or BC may be substituted for Math 261 and/or 262 respectively.
ELECTIVE COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Math 263 | Calculus 3 | 5 |
| Math 270 | Linear Algebra | 3 |
| Math 275 | Ordinary Differential Equations | 3 |
| Math 227 | Statistics | 4 |
| Math 185 | Directed Study - Mathematics | 1 |

## Meteorology

## Certificate of Achievement

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Geog 3 | Introduction to Weather and Climate | 3 |
|  | or | 3 |
| Meteor 3 | Introduction to Weather and Climate | 3 |
| Geog 1 | Physical Geography | 3 |
| Geog 15 | Physical Geography Laboratory | 2 |
| Plus 7 additional units from |  |  |
| Geology 1 | Physical Geology | 3 |
| Geology 6 | Physical Geology Laboratory | 2 |
| Oceano 1 | Introduction to Oceanography | 3 |
| Oceano 10 | Physical Oceanography Laboratory | 2 |
| Geog 31/GIS 31 | Introduction to the Geographic |  |
|  | Information Systems | 3 |
| Geog 32/GIS 32 | GIS Applications | 3 |
| Geog 33/GIS 33 | Intermediate GIS Applications | 3 |

## Music

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program is designed for students desiring the Associate in Arts Degree in Music. Students planning to transfer should consult with a counselor regarding the elective provisions. Non-transfer students should use the elective provisions to take related courses.

| FIRST SEMESTER |  |  |
| :---: | :---: | :---: |
| Music 201 | Harmony I | 3 |
| Music 211 | Musicianship I | 2 |
| Music 321 | Elementary Piano I | 2 |
|  | Performance Organization |  |
|  | (Music 501, 531, 721, 741, 745) | 1 |
|  | General Education | 6 |
| SECOND SEMESTER |  |  |
| Music 161 | Introduction to Electronic Music | 3 |
| Music 181 | Applied Music I | 5 |
| Music 202 | Harmony II | 3 |
| Music 212 | Musicianship II | 2 |
| Music 250 | Music Performance Workshop | 5 |
|  | Performance Organization (see above) | 1 |
|  | General Education | 6 |
| THIRD SEMESTER |  |  |
| Music 121 |  |  |
| or 122 | Music History and Literature I or II | 3 |
| Music 182 | Applied Music II | 5 |
| Music 203 | Harmony III | 3 |
| Music 213 | Musicianship III | 2 |
| Music 250 | Music Performance Workshop | 5 |
|  | Performance Organization (see above) | 1 |
|  | General Education | 6 |
| FOURTH SEMESTER |  |  |
| Music 121 |  |  |
| or 122 | Music History and Literature I or II | 3 |
| Music 183 | Applied Music III | . 5 |
| Music 250 | Music Performance Workshop | . 5 |
|  | Performance Organization (see above) | 1 |
|  | General Education | 6 |

## Certificate of Achievement - <br> Electronic Music

This 2-year program offered by the Pierce Music Department provides participants with the skills needed to operate a MIDI production studio. Expertise in sequencing (Digital Performer/Cubase), synthesis, editing, sampling, digital signal processing will be taught using both Macintosh and IBM platforms.
Proficiency in mixing and recording to both digital tape and hard disc formats will enable students to become completely conversant with the technology that is the common language of today's entertainment industry.

## REOUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Music 161 | Intro to Electronic Music | 3 |
| Music 261 | Electronic Music Workshop (3 semesters) | 9 |
| Music 201 | Harmony I | 3 |
|  | Students must be familiar with notation, |  |
|  | scales, intervals, keys and common musical terms. |  |
| Music 321 | (Information and skills taught in Music 101.) |  |
| Elementary Piano | 2 |  |

## Nursing

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
Los Angeles Pierce College offers an Associate in Arts Degree Nursing Program accredited by the California Board of Registered Nursing and the National League for Nursing Accrediting Commission (see p. 4 for information on accrediting agencies). The graduate is prepared to function as an entry-level nurse. Upon completion of the prescribed curriculum, the graduate is qualified to apply for licensure as a registered nurse in the State of California.
Nursing students receive clinical experience concurrently with classroom instruction. Nursing faculty teach and supervise clinical experiences. Local hospitals and other community health care agencies provide the clinical facilities where students, under supervision, administer direct nursing care to patients. Students must provide their own transportation.
Students must first be admitted into the Nursing Program before they may take nursing courses. Details are available in the Counseling Office (818-719-6440) and the Nursing Department (818-719-6477).
The following programs are also available for qualified individuals seeking career mobility: LVN-to-RN, LVN 30 Unit Option, Transfer and Challenge options, and Foreign Nurse Graduate placement. These programs provide a certificate of completion or an Associate in Arts degree with a major in Nursing. See the Department of Nursing for detailed information.
Portions of completed coursework from this program may be applied toward the attainment of a bachelor's degree in nursing. See a counselor for advice and information on transfer and G.E. certification.
Students must complete all of the following general education prerequisites prior to entering the program:

## REQUIREMENTS FOR ADMISSION

Students must complete all general education prerequisites with a grade of "C" or better prior to applying to the program. Also, students must be in good academic standing and not be on academic or progress probation. Eligibility to be considered for the lottery is based upon state guidelines designed to increase the probability of student success. These guidelines reflect: overall college grade point average (GPA) of 2.5 for prerequisites, an overall GPA of 2.5 for Human Anatomy, Physiology and Microbiology, and no more than one repetition of these courses.

## GENERAL EDUCATION

| Psych 1 | General Psychology | 3 |
| :--- | :--- | :--- |
| Psych 6 | or |  |
| Anaman Behavior | 3 |  |
|  | Intomy 1 | Intro to Human Anatomy |
| Physiol 1 | and | 4 |
|  | Intro to Human Physiol | 4 |
| Physiol 8 \& 9 | or | Integrated Human Anatomy and Physiol |
| Micro 1 | Intro to Microbiology | 8 |
|  | or | 5 |
| Micro 20 | General Microbiology |  |
| English 101 | College Reading and Composition | 4 |
| Soc 1 | Intro to Sociology | 3 |
| Soc 2 | or | 3 |
|  | American Social Problems |  |
| Anthro 102 | or | 3 |
| Speech 101 | Ouman Ways of Life: Cultural Anthropology | 3 |
| Psych 41 | Oral Communication I | 3 |
|  | Life Span Psychology | Math Competency |
|  | (see Associate Degree requirements) | 3 |

Biology 44 and Chemistry 51 or Physiology 1 and 8 are the prerequisites for Microbiology 1 or 20 at LAPC. Courses meeting the general education requirements above may be taken at LAPC or at other institutions. To receive credit, course equivalency must be approved through the LAPC Counseling Department.

## APPLICATION PROCEDURE

Upon completion of prerequisite coursework application forms may be obtained at the Department of Nursing office. Applications are accepted once per year from January 15 to March 15 .

## SELECTION PROCEDURE

Eligible applicants are selected for the program by random lottery and will be notified by mail. Eligibility for random lottery selection is based upon state guidelines designed to increase the probability of student success. These guidelines reflect GPA in overall college courses, all English courses, Anatomy, Physiology and Microbiology. Repetition of Anatomy, Physiology, and Microbiology courses will also be taken into consideration.

NURSING CURRICULUM

## UNITS

FIRST SEMESTER
Nursing $400 \quad$ Adult Health Care I 4
Nursing 402
Nursing 407

SECOND SEMESTER
Nursing 403 Adult Health Care II 5
Nursing $405 \quad$ Psychiatric Health Care 4

## THIRD SEMESTER

Nursing 404 Maternal and Newborn Health Care 4
Nursing 406 Adult Health Care III 5

## FOURTH SEMESTER

Nursing 414 Adult Health Care IV
Nursing 415 - Padiatric Heath Care
Nursing $441 \quad$ History, Trends and Issues of Nursing
4
1
Courses in government, humanities ( 3 units each) and physical education (1 unit), must be completed prior to graduation. Refer to Associate Degree Requirements in this Catalog. Health Education is not required for Nursing Students.
The faculty strongly encourages the completion of a Certified Nursing Assistant (CNA) program to enhance learning experiences.
For further information concerning course planning contact the Counseling Department at (818) 719-6440 or the Nursing Department at (818) 719-6477.

## NURSING DEPARTMENT POLICIES

All nursing and required general education courses must be completed with a grade of " C " or better. The Nursing curriculum for the Associate Degree follows Associate Degree Requirements, Option 2.
Specific program policies governing grading, withdrawal, readmission, probation and dismissal are available in the Nursing Student Handbook and from the Department of Nursing.
The California Board of Registered Nursing may deny a license regulated by the Business and Professional Code, Section 480, on such grounds as: being convicted of a crime, acts of dishonesty; fraud or deceit, etc. Applicants who have questions regarding limitations related to licensure should contact the California Board of Registered Nursing (www.rn.ca.gov).

## Photojournalism

## Also see Journalism

Associate in Arts Degree (An option under Journalism)
Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
The photo program at Pierce has switched to digital cameras and processing. Darkrooms with chemicals for developing film and printing pictures are no longer used. We now have a state-of-the-art digital photo lab where students can use Mac computers for image processing and printing, as is currently done in the industry.
REQUIRED AREA SUBJECTS

|  |  | UNITS |
| :--- | :--- | :---: |
| Broadcast 1 | Fundamentals of Radio and |  |
|  | Television Broadcasting | 3 |
| Journal 100 | Social Values in Mass Communications | 3 |
| ${ }^{2}$ Journal 101 | Collecting and Writing News | 3 |
| Journal 202 | Advanced Newswriting | 3 |
| 1Photo 10 | Beginning Photography | 3 |
| Photo 11 | Advanced Photography | 4 |
| Photo 17 | Introduction to Color Photography | 3 |
| Photo 20 | Beginning Photojournalism | 4 |
| Photo 21 | News Photography | 4 |

AREA ELECTIVE SUBJECTS (9 UNITS MINIMUM)

|  |  | UNITS |
| :--- | :--- | :---: |
| Art 500 | Introduction to Design | 3 |
| Art 502 | Beginning Two-Dimensional Design | 3 |
| Cinema 3 | History of Motion Pictures and Television | 3 |
| Cinema 18 | Main Currents in Motion Pictures | 3 |
| Cinema 104 | History of Documentary Films | 3 |
| Cinema 107 | Understanding Motion Pictures | 3 |
| Co Sci 501 | Introduction to Computers and Their Uses | 3 |
| Coop Ed | Cooperative Work Experience Education | 3 |
| Englis 101 | College Reading and Composition I | 3 |
| English 102 | College Reading and Composition II | 3 |
| Journal 217 | Publication Laboratory | 2 |
| Journal 218 | Practical Editing | 3 |
| Pub Rel 1 | Principles of Public Relations | 3 |
|  | or |  |
| Mgmt 6 | Public Relations | 3 |

GENERAL EDUCATION - SELECT 12 UNITS
See Associate Degree requirement section.
${ }^{1}$ Photo 10 meets the graduation General Education Requirements, of Option 2, Section C.
${ }^{2}$ Journal 101 meets the graduation General Education Requirements, of Option 2, Section D1.

## Certificate of Achievement

Completion of this certificate provides a student with the basics of photography and photojournalism, including shooting and developing black and white film, the functions of the mass media, the fundamentals of gathering news and the history and aesthetics of photography. Students will also be introduced to PhotoShop, the computer program by which film is scanned and prepared for publication, and will have an opportunity to take photos for publication in the school newspaper.

REQUIRED COURSES

| Photo 10 | Beginning Photography | 3 |
| :--- | :--- | :---: |
| Photo 20 | Beginning Photojournalism | 4 |
| Journal 100 | Social Values in Mass Communication | 3 |
| Journal 101 | Collecting and Writing News | 3 |
| Plus one of the following courses: |  |  |
| Photo 11 | Advanced Photography | 4 |
| Photo 17 | Introduction to Color Photography | 3 |
| Photo 21 | News Photography | 4 |

## Physical Education

## Certificate of Achievement -

 Physical Education: Lifetime Fitness| Health 8 | Women's Personal Health | 3 |
| :--- | :--- | :---: |
|  | Or |  |
| Health 11 | Principles of Healthful Living | 3 |
| Phys Ed 90A | Individual Physical Fitness Laboratory | $1 \times 2$ |
| Phy Ed 90B | Individual Physical Fitness Laboratory | 1 1x2 |
| Phys Ed 225 | Yoga Skills | $1 \times 2$ |
| Phys Ed 102 | Swimming Skills | 1 |
| Dance Act 431 | Modern Dance | 1 |
|  | Or |  |
| Dance Act 434 | Ballet | 1 |
| Phys Ed 440 | Social Dance | 2 |
| Dance Act 446 | Or | Tap Dance |

## Plus 4 units from the following:

| Phys Ed 203 | Badminton Skills | 1 |
| :--- | :--- | :--- |
| Phys de 212 | Tennis Skills | 1 |
| Phys Ed 228 | Body Conditioning | 1 |
| Phys Ed 229 | Body Dynamics | 1 |
| Phys Ed 259 | Golf Skills | 1 |
| Phys Ed 322 | Volleyball Skills | 1 |

## Certificate of Achievement - Physical Education

| Health 11 | Principles of Healthful Living | 3 |
| :--- | :--- | :--- |
| Phys Ed 90A | Individual Physical Fitness Laboratory | 1 |
|  | Or |  |
| Phys Ed 90B | Individual Physical Fitness Laboratory | 1 |
| Phys Ed 102 | Swimming Skills | 1 |
| Phys Ed 203 | Badminton Skills | 1 |
| Phys Ed 212 | Tennis Skills | 1 |
| Phys Ed 225 | Yoga Skills | 1 |
| Phys Ed 228 | Body Conditioning | 1 |
|  | Or |  |
| Phys Ed 229 | Body Dynamics | 1 |
| Phys Ed 244 | Karate SKills | 1 |
| Phys Ed 259 | Golf Skills | 1 |
| Phys Ed 313 | Soccer Skills | 1 |
| Phys Ed 304 | Basketball Skills | 1 |
|  | Or |  |
| Phys Ed 322 | Volleyball Skills | 1 |
| Physiology 8 | Integrated Human Anatomy and Physiology I | 4 |

## Physics

## Certificate of Achievement

REQUIRED COURSES

## Physics 101

Physics 102 Physics 103

|  | UNITS |
| :--- | :---: |
| Physics for Engineers and Scientists I | 5 |
| Physics for Engineers and Scientists II | 5 |
| Physics for Engineers and Scientists III | 5 |

## Pre-Engineering

## Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
A student may receive an Associate in Science degree in pre-engineering by taking at least 36 units from the subjects listed below, completing 18 units in general education as per Associate Degree Requirements, Option 2 and completing 60 units overall. This degree is designed for the student planning to transfer to a four year college or university as an engineering major.
Just taking any 36 units, however, will not qualify one for admission to upper division Engineering. Students are urged to see a counselor for qualifying courses.

## COURSES WHICH QUALIFY FOR THE 36 UNITS

Chem 101, 102
Co Sci 515, 516, 539
Math 261, $262,263,270,275$, plus any CSU transferable mathematics
course which is prerequisite to Math 261.
Physics 101, 102, 103
Philosophy 9
Students must have at least 1 course from each of the categories above.
Students should see counselor or department chair for preferred courses from above list.

## Psychology

The psychology courses needed to fulfill the requirements for the following certificate are NOT NECESSARILY REQUIRED for transfer students majoring in psychology. Students planning to transfer should consult with a counselor or psychology advisor before planning their curriculum. Students are advised that most professional employment opportunities in psychology require a post-baccalaureate degree.

## Certificate of Achievement

Completion of this certificate verifies that the student is familiar with the basic foundations of psychology and has explored several of its sub-fields in greater depth.
Required units: 15.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Psychology 1 | General Psychology I (recommended) <br> or | 3 |
| Psychology 6 | Human Behavior | 3 |
| Psychology 2 | General Psychology II | 3 |
| Plus 9 additional units from: |  |  |
| Psychology 3 | Personality and Social Development | 3 |
| Psychology 11 | Child Psychology | 3 |
| Psychology 12 | Adolescent Psychology | 3 |
| Psychology 13 | Social Psychology | 3 |
| Psychology 14 | Abnormal Psychology | 3 |
| Psychology 16 | Intimacy, Marriage, and Family Relationships | 3 |
| Psychology 17 | The Exceptional Child | 3 |
| Psychology 32 | Psychology of Women | 3 |
| Psychology 41 | Life Span Psychology | 3 |
| Psychology 52 | Psychological Aspects of Human Sexuality | 3 |
| Psychology 60 | Stress Management | 3 |
| Psychology 66 | Introduction to Critical Thinking | 3 |


| Psychology 185 | Directed Study - Psychology | 1 |
| :--- | :--- | :--- |
| Psychology 285 | Directed Study - Psychology | 2 |
| Psychology 385 | Directed Study - Psychology | 3 |
| Statistics 1 | Elementary Statistics I for the |  |
|  | Social Sciences | 3 |
| Statistics 7 | or |  |
|  | Understanding and Applying Statistics | 4 |

## Sign Language

See American Sign Language in this section

## Spanish

The main objectives of the program in Spanish are to develop competence in the ability to understand, speak, read, and write Spanish, and to provide through the knowledge of Spanish an understanding and appreciation of the language and culture.
Students are placed in Spanish courses according to their years of previous study. In general, one year of high school Spanish is equated to one semester of Pierce College work. Thus recent high school graduates with one, two, three, or four years of high school Spanish will enroll in Spanish 2, 3, 4, or 5 respectively. Exceptions to this basic placement formula may be made after consultation with the Spanish Faculty. Proficient native speakers should enroll in Spanish 4, 5, or 6.
All courses in Spanish, unless specifically stated, are taught in the foreign language. By the end of the first year, students attain mastery of the basic structure of the language and ability to converse on everyday topics as well as read and write on an elementary level.
In the second year, Spanish 3 and 4, emphasis is put on gradually raising the student's ability to speak, read, and write. Spanish 27, Cultural Awareness Through Advanced Conversation, combines with Spanish 4 to increase oral proficiency and prepares a student to live in a foreign country.
Spanish 5 and 6 stress composition and analysis and appreciation of many short literary selections, short stories, and films.
The courses taught in English, including Latin American Civilization, Understanding Latin America Through Film, Contemporary Mexican Literature, Great Books of Latin America, Mexican Literature and Culture, The Spanish American Short Story, and Mexican Civilization combine a panoramic overview with a close look at a specific country or topic.
Students are encouraged to participate in programs of study abroad during the summer or semester abroad program.

## Career Opportunities

Spanish is particularly useful in international business or trade, community or social service, and in foreign service. Majoring in Spanish is excellent preparation for graduate and professional study in law, medicine, government, social welfare, international relations, journalism, or education.

## Associate in Arts Degree

| REQUIRED COURSES |  |  |
| :---: | :---: | :---: |
| Spanish 4 | Intermediate Spanish I or higher | 5 |
|  | and |  |
| Spanish 101 | Spanish Language Laboratory | 1 |
| Spanish 10 | Latin-American Civilization | 3 |
| Spanish 27 | Cultural Awareness through | 3 |
|  | Advanced Conversation |  |
|  | or |  |
| Spanish 8 | Conversational Spanish | 2 |
| Any two of the following courses: |  |  |
| Spanish 12 | Contemporary Mexican Literature | 3 |
| Spanish 15 | Great Books of Latin America | 3 |
| Spanish 16 | Mexican Civilization | 3 |
| Spanish 25 | Spanish American Short Story | 3 |
| Spanish 26 | Understanding Latin America Through Film | 3 |
| Spanish 65 | Mexican Literature and Culture | 3 |

## RECOMMENDED ELECTIVES

| Anthro 102 | Human Ways of Life: Cultural Anthropology | 3 |
| :--- | :--- | :--- |
| Ling 1 | Introduction to Language and Linguistics | 3 |
| History 5 | History of the Americas I | 3 |
| History 6 | History of the Americas II | 3 |

## Certificate of Achievement - <br> Spanish

This certificate provides the student with a reading and speaking ability in Spanish; the ability to engage in thoughtful dialogue about Latin America; the ability to locate Latin American ideas, historical events, and cultural phenomena in the Latin American context from which they originate.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Spanish 4 | Intermediate Spanish II | 5 |
| Spanish 10 | Latin American Civilization | 3 |
| Spanish 26 | Understanding Latin America Through Film | 3 |
| Spanish 16 | Mexican Civilization | 3 |
|  | or |  |
| Spanish 65 | Mexican Literature and Culture | 3 |
| Plus one of the following: |  |  |
| Spanish 12 | Contemporary Mexican Literature | 3 |
| Spanish 15 | Great Books of Latin American Literature | 3 |
| Spanish 25 | Spanish American Short Story in Translation | 3 |

## Certificate of Achievement Hispanic Studies

This certificate provides the student with a reading and speaking proficiency in Spanish; the ability to engage in thoughtful dialogue about Spain; the ability to locate Spanish ideas, historical events, and cultural phenomena in the Spanish context from which they originate.

## REQUIRED COURSES

|  |  | UNITS |
| :--- | :--- | :---: |
| Spanish 5 | Advanced Spanish I | 5 |
| Spanish 8 | Conversational Spanish | 2 |
| Spanish 9 | Hispanic Civilization | 3 |
| Spanish 11 | Great Books of Spanish Literature | 3 |
| Spanish 48 | Introduction to Spanish Translation I | 3 |

## Certificate of Achievement Spanish Translation

This certificate program provides the student with an academic grounding in translation theory and practice. The emphasis of this program is on translation into English. Students interested in obtaining further translation credentials are encouraged to discuss their options with the faculty translation advisor.

## REQUIRED COURSES

Spanish 5
Advanced Spanish I
Spanish $8 \quad$ Conversational Spanish UNITS
Spanish $\quad 5$
$\begin{array}{lll}\text { Spanish } 9 & \text { Hispanic Civilization } & 3\end{array}$
Spanish 10 Latin American Civilization and Culture
Spanish 49

Spanish $48 \quad$ Introduction to Spanish Translation I
Introduction to Spanish Translation II 3

## Speech Communication

## Certificate of Achievement - Communication Studies

A certificate of achievement in Communication Studies prepares students for greater success in academic and professional settings. Courses from Speech Communication and related disciplines provide students a broader perspective of communication. Communication courses provide greater understanding of, as well as skill development in the area of communication.

## REQUIRED COURSE

| Speech 101 | Oral Communication I | 3 |
| :--- | :--- | :--- |
| Select a minimum of 9 units from the following: |  |  |
| Speech 104 | Argumentation | 3 |
| Speech 121 | Interpersonal Communication | 3 |
| Speech 122 | Communication Across Cultures | 3 |
| CAOT 32 | Business Communications | 3 |
| Broadcast 1 | Fundamentals of Radio and Television |  |
| Multimedia 110 | Broadcasting | Visual Communication |

## Theater

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.
This program is designed to meet the requirements of the Associate in Arts Degree and to provide instruction in theater history, literature, acting, and technical stage work. Public performances of plays are given with opportunities for practical experience. Second semester students may participate in drama productions by enrolling in Theater 232, Play Production or Theater 250, Children's Theater.

| FIRST SEMESTER |  |  |
| :---: | :---: | :---: |
| ${ }^{1}$ Theater 100 | Introduction to the Theater | 3 |
| Theater 240 | Voice and Articulation for the Theater | 3 |
| Theater 270 | Beginning Acting | 3 |
| ${ }^{2}$ Theater 342 | Technical Stage Production | 2 |
|  | or |  |
| Theater 411 | Costuming for the Theater | 3 |
| SECOND SEMESTER |  |  |
| Theater 232 | Play Production | 2 |
|  | or |  |
| Theater 250 | Children's Theater Production | 2 |
|  | or |  |
| Theater 292 | Rehearsals and Performances | 2 |
| Theater 271 | Intermediate Acting | 2 |
| ${ }^{2}$ Theater 342 | Technical Stage Production | 2 |
|  | or |  |
| ${ }^{3}$ Theater 411 | Costuming for the Theater | 3 |
|  | Recommended Electives | 3 |
| THIRD SEMESTER |  |  |
| Theater 110 | History of World Theater | 3 |
| Theater 232 | Play Production | 2 |
|  | or |  |
| Theater 250 | Children's Theater Production | 2 |
|  | or |  |
| Theater 292 | Rehearsals and Performances | 2 |
| Theater 230 | Acting for the Camera | 3 |
|  | or |  |
| Theater 273 | Advanced Acting | 2 |
| Theater 450 | Beginning Stage Make-up | 2 |


| FOURTH SEMESTER |  |  |
| :---: | :---: | :---: |
| Theater 125 | Dramatic Literature | 3 |
| Theater 225 | Beginning Direction | 3 |
|  | or |  |
| Theater 232 | Play Production | 2 |
|  | or |  |
| Theater 250 | Children's Theater Production | 2 |
|  | or |  |
| Theater 292 | Rehearsals and Performances | 2 |
| Theater 300 | Introduction to Stage Craft | 3 |
|  | Recommended Electives | 3 |

Recommended Electives: Theater 125, 225, 265
${ }^{1}$ Meet Associate Degree General Education Requirement - Humanities
${ }^{2}$ Prerequisite for Theater 232 - Play Production
${ }^{3}$ Recommended one semester Theater 342 followed by one semester of any costume class

## Theater - Costume Option

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

## FIRST SEMESTER

Theater 100 Introduction to Theater
Theater 270 Beginning Acting
Theater 300 Introduction to Stage Craft
Theater 411 Costuming for the Theater
SECOND SEMESTER
Theater $315 \quad$ Introduction to Theatrical Scenic Design
Theater 411 Costuming for the Theater
Beginning Stage Make-up
Recommended Electives
THIRD SEMESTER
$\begin{array}{lll}\text { Theater } 310 & \text { Introduction to Theatrical Lighting } & 3 \\ \text { Theater } 411 & \text { Costuming for the Theater } & 2\end{array}$
Recommended Electives
FOURTH SEMESTER
Speech $101 \quad$ Oral Communication
${ }^{2}$ Theater 342 Technical Stage Production
Theater 411 Costuming for the Theater Recommended Electives

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[^5]
# Theater Technical Theater Option 

## Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two
years of a program leading to a bachelor's degree.

| FIRST SEMESTER |  |  |
| :---: | :---: | :---: |
| ${ }^{1}$ Theater 100 | Introduction to the Theater | 3 |
| Theater 270 | Beginning Acting | 3 |
| Theater 300 | Introduction to Stage Craft | 3 |
| Theater 342 | Technical Stage Production | , |
| SECOND SEMESTER |  |  |
| Theater 315 | Introduction to Theatrical Scenic Design | 3 |
| Theater 342 | Technical Stage Production | 2 |
| Theater 450 | Beginning Stage Make-up | 2 |
|  | Recommended Electives | 2 |
| THIRD SEMESTER |  |  |
| Theater 310 | Introduction to Theatrical Lighting | 3 |
| ${ }^{2}$ Theater 342 | Technical Stage Production | 2 |
|  | Recommended Electives | 4 |
| FOURTH SEMESTER |  |  |
| Speech 101 | Oral Communication I | 3 |
| Theater 411 | Costuming for the Theater | 3 |
|  | Recommended Electives | 6 |

${ }^{1}$ Meets Associate Degree General Education Requirement Humanities
${ }^{2}$ Same as Technical Theater 342, which may be substituted.

## Women's Studies

Offered by the History/Humanities Department

## Certificate of Achievement -

 Women's StudiesThe Women's Studies certificate program is designed to enable students to integrate courses in several disciplines and achieve a broad understanding of the complex roles of women in American society, past, present, and future.

|  |  | NITS |
| :---: | :---: | :---: |
| Anthropology 109 | Gender, Sex and Culture | 3 |
| English 239 | Women in Literature | 3 |
| History 52 | The Role of Women in the |  |
|  | History of the U.S. | 3 |
| Psychology 32 | Psychology of Women | 3 |
| Plus 3 units from the following: |  |  |
| English 252 | The English Bible as Literature | 3 |
| Health 8 | Women's Personal Health | 3 |
| Political Sci 19 | Women in Politics | 3 |
| Psychology 16 | Intimacy, Marriage, and |  |
|  | Family Relationships | 3 |
| Psychology 52 | Psychological Aspects of | 3 |

## Cooperative Work Experience Education

(CWEE) combines on-the-job experience with regular classroom instruction. It is designed to expand skills and knowledge and to improve self understanding by integrating classroom study with planned supervised work experience. CWEE is based on the principle that well educated individuals develop most effectively by incorporating related education and work experience. These structured experiences in business, industry; government and human services bring an enrichment to college studies which enhances the student's total development. It is called CWEE because the educational objectives are carefully planned and coordinated with the student's employer to provide realistic employment experience. The objectives are:

1. To provide opportunity for the student to secure employment on a parttime or full-time basis.
2. To gain realistic work experience that is meaningfully related to the student's college study program.
3. To provide the student opportunity to acquire knowledge, skills, and attitudes essential for successful employment.

## Benefits of Cooperative Work Experience Education

## The student:

1. Has the opportunity to learn or improve employment skills under actual working conditions.
2. Gains perspective on career goals through application of classroom theory to "real life experience."
3. Builds self-identity and confidence as a worker through individual attention given by instructor/coordinators and employers.
4. Has opportunities to test personal abilities in work environments.
5. Has a more realistic approach to the job market.
6. Will gain a better understanding of human relations.
7. Will earn to apply Management By Objectives (MBO).
8. May refer to work experience education on future job applications.
9. Benefits financially while learning.
10. Can begin a career earlier.

## Student Qualifications

## THERE ARE TWO PLANS FOR CWEE:

## Parallel Plan:

1. Pursue a planned pro gram based on measurable learning objectives agreed to, with CWEE instructor / Coordinator.
2. Be enrolled in no less than 7 units (including CWEE units).

## Occupational Work Experience (Parallel Plan)

Hours by Arrangement, 1-4 units
Prerequisite: Approval of Work Experience Coordinator
A program of on-the-job learning experience for students employed in a job related to an occupationally oriented major in which no work experience course is offered. May be repeated three times for a maximum of 16 units. To receive credit a student must complete a minimum of seven units during the semester, including work experience.

## General Work Experience (Parallel Plan)

Hours by Arrangement, each course 1-3 units
Prerequisite: Approval of work Experience Coordinator
A program of on-the job learning experiences designed to assist the student in developing occupational effectiveness. Employment need not be related to the student's vocational or occupational major. One unit of credit is earned for each 75 hours of paid employment or 60 hours of volunteer work, with a maximum of 3 units. To receive credit a student must complete 7 units, including work experience.

## OR

## Alternate Plan:

1. Pursue a planned program based on measurable learning objectives agreed to, with the CWEE instructor/Coordinator.
2. Have earned at least seven units of class work before enrolling.

## Occupational Work Experience (Alternate P1an)

Hours by Arrangement 1-8 units
Prerequisite: Approval of Work Experience Coordinator
A program of on-the-job learning experiences which enables the student to attend college full-time one semester and work full-time the following semester. The work must relate directly to the student's educational goal and he/she must have satisfactorily completed at least seven units of credit and may not be enrolled concurrently in more than one other course. Eligibility determined by regulations in Title V California Administrative Code. May be repeated three times for a maximum of 16 units.

## General Work Experience (Alternate Plan)

Hours by Arrangement, 1-6 units
A program of on-the-job learning experiences which enables the student to attend college full-time one semester and work full-time the following semester. Under this plan the work need not relate directly to the student's educational goal. The student must have completed at least 7 units of credit and may not be enrolled concurrently in more than one other course. Eligibility for enrollment will be determined in accordance with applicable regulations contained in Title V California Educational Code.


## Cooperative Work Experience Education Credit Guide

## CALIFORNIA STATE UNIVERSITY: APPROVED Cooperative Work Experience Education SUBJECT AREAS

Los Angeles Community College District policy provides that a maximum of eight (8) semester units in Cooperative Work Experience Education courses completed in the subject areas listed below may be applied toward the California State University 56 unit admission requirement.

Accounting
Administration of Justice
Afro-American Studies
Agriculture
Air Conditioning
Technology
Aircraft Electronics Technology Animal Husbandry
Anthropology
Architecture
Art
Astronomy
Aviation Maintenance
Technician
Biology
Botany
Broadcasting
Business
Business Data Processing
Chemistry
Chicano Studies
Child Development
Cinema
Commercial Art
Computer Applications and
Office Technologies (CAOT)
Computer Maintenance
Technician
Computer Science -
Information Technology
Computer Technology
Drafting
Economics
Education
Electronics
Electronics Technician
Electronics Technology
Engineering
English
Environmental Science
Family and Consumer
Studies
Fire Science
Foreign Languages
Geography
Geology
Health
History
Humanities

Industrial Arts
Jewish Studies
Journalism
Law
Linguistics
Management
Mathematics
Mechanical Drafting
Medical Record Science
Merchandise Display
(Visual Merchandising
and Display)
Merchandising
(Marketing)
Meteorology
Microbiology
Mineralogy
Music
Natural Resources
Management
Nursing
Oceanography
Philosophy
Photography
Photography, Commercial
(Photography-T)
Physical Education
Physics
Physiology
Political Science
Psychology
Public Service
Real Estate
Recreation
Respiratory Therapy
Restaurant Management
Sign Graphics
Social Science
Sociology
Speech Communication
Statistics
Technical Illustration
Television
Theater
Transportation
Urban Planning
Water Systems
Technology
Zoology

# Transfer Information 

## The Transfer Center

The Pierce College Transfer Center has resources and services to make the transition from Pierce to a four-year college/university easier. Representatives from many public and private universities, including UCLA, CSUN, CSU Los Angeles and UC Santa Barbara meet regularly with prospective students to advise them regarding admissions, program planning, and other support services.
For additional information on these and other transfer-related activities, visit the Transfer Center in the Administration Building, room 1006. You can also contact the Transfer Center Director, Elizabeth Atondo, at 818-710-2516 or eatondo@piercecollege.edu

## Transfer Information Websites:

As a student, the internet is one of your most important resources for transfer information. We have workstations available to use in our center if you don't have internet access at home. So, please stop by and let us help.

You can use the Pierce College Transfer website as a portal to transfer information for the UC's, CSU's, privates and out-of-state colleges and universities:

## Pierce College Transfer Website:

www.piercecollege.edu/students/transfer
University of California Transfer Information:
www.universityofcalifornia.edu/admissions
California State University Transfer Information:
CSU Mentor: www.csumentor.edu
California Private and Independent Transfer Information:
AICCU: www.aiccumentor.org

## Which courses transfer?

## California Public Institutions: UC and CSU

ASSIST: As a prospective transfer student, it is important to make sure that the community college courses you take are acceptable to the university for transfer credit. ASSIST is California's official statewide repository of transfer information for the California State University and University of California systems.
www.assist.org

## Pierce College and University of California Transfer Partnerships

Pierce has transfer agreements with the following UC campuses: Davis, Irvine, Los Angeles, Riverside, Santa Barbara, San Diego and Santa Cruz. Please see a Pierce Counselor and stop by the Transfer Center for more details. You can also find the program requirements for each campus on the Pierce College Transfer website. Click on Transfer Admission Agreements.

## Pierce College and California State University Transfer Partnerships

Pierce has transfer agreements with CSU Northridge and CSU Channel Islands. Please see a Pierce Counselor and the Transfer Center for details.

## Pierce College and California Private Institution Transfer Partnerships

Through the Pierce Honor's Program, we have transfer agreements with some private universities. The requirements for the Honor's program at Pierce, as well as additional information, can be found on the Pierce College Transfer website or at the Honor's Office.

## Develop an Educational Plan

The most important action you can take to ensure success is to meet early with a Pierce counselor and develop an educational plan. This plan will include courses you need to meet transfer requirements. Using and updating an educational plan throughout your attendance at Pierce will ensure the most direct path to transfer and earning a baccalaureate degree.

## The Counseling Center

Prospective transfer students are encouraged to meet with a counselor in order to develop and refine educational plans and career goals. Each counselor is well-equipped to assist students in planning transfer-related coursework.

In addition to serving students in the Counseling Center, the counseling staff offers a number of Personal Development courses as part of the College's curriculum. These courses include skill-building activities to enhance program planning, personal and professional development, study and time management skills, and strategies for problem solving and decision-making. Please refer to the Personal Development section of Course Descriptions in this catalogue for additional information.

The Counseling Center is located in room in the Administration 1000.

## General Education Agreements

The California State University and the University of California systems have developed systemwide general education agreements which enable community college transfer students to complete lower division courses that satisfy general education requirements at many CSU's and UC's.

## Intersegmental General Education Transfer Curriculum (IGETC) for Advanced Standing to the California State University and University of California Systems

The Intersegmental General Education Transfer Curriculum permits a student to transfer from a California community college to a campus in either the California State University or the University of California system without the need, after transfer, to take additional lower division, general education courses to satisfy campus GE requirements.

Completion of the IGETC is not a requirement for transfer to a CSU or a UC, nor is it the only way to fulfill the lower division, general education requirements of the CSU or UC prior to transfer. As an alternative, students transferring to the CSU may elect to follow the General Education Certification Program. Students may also elect to fulfill the graduation requirements listed in the catalog of any specific CSU or UC campus.

If IGETC is elected as the option to fulfill the general education requirements, all areas must be met with minimum grades of "C" prior to transfer.
IGETC is not advisable for all students planning to transfer. It is not recommended for certain majors and certain colleges, and some colleges do not accept IGETC. The IGETC is only one way to fulfill the lower division general education requirements of the UC or CSU.

There are lots of details you need to know. Stop by the Counseling Office or check the Pierce Transfer website for complete IGETC information and to find answers to the following questions.

1) What is IGETC? Is it right for me?
2) Do I have to complete IGETC to transfer to a CSU or UC?
3) How do I complete the IGETC?
4) When do I certify the IGETC?
5) I have completed courses at other colleges. Will they count toward IGETC?
6) I have taken courses at a foreign institution. Will they count toward IGETC?
7) Will the courses I take as transfer requirements for my major be counted toward IGETC?
8) I have passed an Advanced Placement test. Can my AP score be used to satisfy an IGETC requirement?
9) I took two years of a foreign language in High School. Will that count toward IGETC?
10) English is my second language. Do I have to take a foreign language here?
11) Do courses completed need a minimum grade?
12) I took a course which was on a previous IGETC, but not on this one. Does the course still count toward IGETC?
13) IGETC Exceptions.

## Los Angeles Pierce College 2007-2008 IGETC:

## AREA 1- ENGLISH COMMUNICATIONS

(CSU - $\mathbf{3}$ courses required, one from each group below.
UC-2 courses required, 1 each from Group A \& B.)
Group A: English Composition, 1 course, 3 semester units or 4-5 quarter units English 101

Group B: Critical Thinking - English Composition, 1 course, 3 semester units or 4-5 quarter units
English 102, 103;
Philosophy 5;
(English 101, with a grade of "C" or better, must be completed prior to English 102, 103 or Philosophy 5)

Group C: Oral Communication (CSU requirement only) 1 course, 3 semester units or 4-5 quarter units Speech 101, 104, 121.

AREA 2 - MATHEMATICAL CONCEPTS and QUANTITATIVE REASONING ( 1 course, 3 semester units or 4-5 quarter units)

Math 227+, 238+, 245+, 260+, 261+, 262+, 291+; Statistics $1+, 7+$

## AREA 3 - ARTS and HUMANITIES

( 3 courses required, at least 1 from each group below. 9 semester units or $12-15$ quarter units)

Group A: Arts
Art 101, 102, 103, 105, 109, 111, 137, 138, 139, 500, 501, 502; Cinema 3, 18, 104, 107; Dance 802, 803, 804; Music 111, 112, 121, 122; Theater 100, 110.

## Group B: Humanities

ASL 3, 4; Anthropology 104 (same as Linguistics 1), 121;
English 203, 204, 205, 206, 207, 208, 209, 211+, 212+, 213
(same as Theater 125), 214, 215, 216, 219, 239, 240, 250, 251, 252,
270; French $3^{*}, 4^{*}, 5^{*}, 6^{*}$; History $1,2,7+, 43+^{*}, 44+^{*}, 86,87$;
Humanities 3, 6, 11, 12, 13, 14, 30, 31, 60; Italian $3^{*}, 4^{*}, 5^{*}, 6^{*}$;
Japanese 3*; Linguistics 1 (same as Anthropology 104); Philosophy 1, $2,12,14,15,19,20,30,33,35,40,41,42$; Spanish $3^{*}, 4^{*}, 5^{*}, 6^{*}$, $9,12,15,25,26,65$; Theater 125.

## AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES

( 3 courses from at least 2 disciplines 9 semester units or 12-15 quarter units)

Administration of Justice 1, 2, 4, 67;
Anthropology 102, 105, 106, 109, 132; Chicano 2, 80;
Child Development 1 (Same As Psychology 11); Economics 1, 2, 10 (same as History 15); Environmental Science 17 (same as Geography 14); Geography 2, 7, 14 (same as Environmental Science 17), 21, 22; History $3,4,5,6,8,11+^{*}, 12+^{*}, 13+^{*}, 14+^{*}, 15$ (same as Economics 10), 20, 21, 29, 30, 39, $41+^{*}, 42+^{*}, 43+^{*}, 44+^{*}, 52^{*}, 86,87$;

Journalism 100; Law 3; Political Science 1*, 2, 7, 14, 19, 30*;
Psychology 1+, 6+, 11 (same as Child Development 1), 12, 13, 14, 32, 41, 52, 66; Sociology 1, 2, 3, 4, 8, 11, 13, 28, 29; Spanish 10, 16; Speech 121, 122.

## AREA 5 - PHYSICAL and BIOLOGICAL SCIENCES

( 2 courses, 1 from each group, at least 1 must include a laboratory. Lab courses are underlined. 7-9 semester units Or 9-12 quarter units. The lab selected must correspond to the lecture course used.)

## Group A: Physical Sciences

Astronomy $1+, \underline{2}+, \underline{3}+$; Chemistry $60+, 101,102,211+, 212+, 221+;$ Environmental Science 1, 7 (same as Geology 10);
Geography $1+, 3$ (same as Meteorology 3), $15+$; Geology $1+, 2+\underline{6+}$, $7+10$ (same as Environmental Science 7), 22ABCD+; Meteorology 3 (same as Geography 3); Oceanography 1, 10; Physical Science 1+, $4+$, $14+$ Physics $6+, 7+, 12+, 66+, 67+, 101+, 102+, 103+$.

## Group B: Biological Sciences

Anatomy 1; Anthropology 101, 111; Biology 3+, 6, 7, 10,
$11 \mathrm{ABC}+, 46,121,122,123$; Environmental Science 2; Microbiology $\underline{1+}, 20+$; Oceanography $2+$ or $12+, \underline{14+}$; Physiology $\underline{1+}, \underline{8+}, \underline{+}$; Psychology 2, 73.

## LANGUAGE OTHER THAN ENGLISH (UC Requirement Only)

Proficiency equivalent to 2 years of high school foreign language study in the same language with a grade of " C " or better. At Pierce, this requirement can be satisfied by completion of level 2 in a foreign language. Choose from: ASL 2, French 2, Italian 2, Japanese 2; Spanish 2. If language level 3 or higher is used to satisfy this requirement, it may not be used in Area 3 Group B: Humanities.
For a complete list of ways to satisfy this requirement, stop by the Counseling Office or check the Pierce Transfer website at www.piercecollege.edu/students/transfer

CSU GRADUATION REQUIREMENT IN U. S. HISTORY, CONSTITUTION and american ideals
(Not part of IGETC, but may be completed prior to transfer.) 2 courses, 1 from each group, ( 6 semester units, 9-12 quarter units). Courses used to meet this requirement may not be used to satisfy requirements for IGETC.
Group A: Political Science 1, 19, 30;
Group B: History $11+, 12+, 13+, 14+, 41+, 42+, 43+, 44+, 52+$
*Course is listed in more than one area but will not be certified in more than one area.

+ Transfer credit is limited by either UC or CSU or both. Please consult with a counselor.
_Underline indicated that a course is a lab course.


## CSU General Education Certified Plan 2007-2008

## AREA A - COMMUNICATION in the ENGLISH LANGUAGE and CRITICAL THINKING

(3 courses required, one from $A-1, A-2$ and $A-3$. 9 semester or 12-15 quarter units.)

A-1 ORAL COMMUNICATION - Speech 101, 104, 121
A-2 WRITTEN COMMUNICATION - English 101
A-3 CRITICAL THINKING - Philosophy 5, 6, 7, 9;
English 102, 103; Speech 104; Psychology 66.

## AREA B - PHYSICAL UNIVERSE and ITS LIFE FORMS

(3 courses required with at least one course each from Physical Universe, Life Science, and Mathematics/Quantitative Reasoning. At least one of the science courses must contain a laboratory component that corresponds to the lecture course used. See Area B-3 below. 9 semester or 12-15 quarter units.)

## B-1 PHYSICAL SCIENCE

Astronomy 1, 3; Chemistry 51, 60, 101, 102, 211, 212, 221; Environmental Science 1, 7 (same as Geology 10); Geography 1, 3 (same as Meteorology 3); Geology 1, 2, 4, 10, 11, 22ABCD (3 units min.); Meteorology 3 (same as Geography 3); Oceanography 1; Physical Science 1, 4; Physics 6, 7, 12, 66, 67, 101, 102, 103; Plant Science 103.

## B-2 LIFE SCIENCE

Anatomy 1; Animal Science 511; Anthropology 101; Biology 3, $6,7,10,11 \mathrm{ABC}, 12 \mathrm{ABC}, 18 \mathrm{ABC}, 39,40,46,121,123$; Environmental Science 2; Microbiology 1, 20; Oceanography 2, 12; Physiology 1, 8, 9; Plant Science 901, 940, 950; Psychology 2.

## B-3 LABORATORY ACTIVITY

Anatomy 1; Animal Science 512; Anthropology 111; Astronomy 2, 3; Biology 3, 6, 7, 10, 11ABC, 12ABC, 18ABC, 40, 122, 123; Chemistry 51, 60, 101, 102, 211, 212, 221; Geography 15; Geology 4, 6, 22ABC; Microbiology 1, 20; Oceanography 2, 10, 14; Physical Science 4, 14; Physics 6, 7, 66, 67, 101, 102, 103; Physiology 1, 8, 9; Psychology 73.

## B-4 MATHEMATICS/QUANTITATIVE REASONING

Math 215, 227, 238, 240, 245, 260, 261, 262, 291; Statistics $1,7$.

## AREA C - ARTS, LITERATURE, PHILOSOPHY and FOREIGN LANGUAGE

(3 courses required, at least one course from C1 and one course from C2. The third course may be from either area. 9 semester or 12-15 quarter units.)

C-1 ARTS (Art, Dance, Music, Theater)
Art 101-103, 105, 109, 111, 137-139, 201, 300, 500, 501, 502, 700, 708AB; Cinema 3, 18, 104, 107; Dance 801, 802, 803, 804, 812, 814, 818; Theater 100, 110, 125, 270, 271, 273; English 213 (same as Theater 125); Humanities 6, 11-14, 30, 31, 60, 61, 89; Music 111, 112, 121, 122, 226, 241, 251, 299, 321-324, 341, 411-414, 501, 561, 571, 601, 611, 621, 651, 705, 721, 741, 755; Photography 9-11.

C-2 HUMANITIES (Literature, Philosophy, Foreign Language) Anthropology 104 (same as Linguistics 1), 121; ASL 1, 2, 3, 4; English 102, 127, 203-209, 211-216, 219, 239, 240, 250-252, 270; French 1-6; History 1, 2, 7, 43, 44, 86, 87; Humanities 2, 3, 6, 11-14, 30, 31, 60, 61, 89;
Italian 1-6; Japanese 1-4, 8; Linguistics 1 (same as Anthropology 104);
Philosophy 1, 2, 12, 14, 15, 19, 20, 29, 30, 33, 35, 40, 41, 42; Spanish 1-6, 9, 12, 15, 21, 22, 25, 26, 27, 65; Theater 125 (same as English 213).

## AREA D - SOCIAL, POLITICAL \& ECONOMIC INSTITUTIONS \& BEHAVIOR HISTORICAL BACKGROUND

(3 courses required with courses taken in at least 2 disciplines. 9 semester or 12-15 quarter units.)

## CSU AMERICAN HISTORY AND INSTITUTIONS REQUIREMENT

(One course from each group. 6 semester units or 9-12 quarter units.) By taking 1 course from each group you have met the CSU Graduation Requirement and you may count the courses toward satisfying Area $D$.

History 11, 12, 13, 14, 41, 42, 43, 44, 52.
Political Science 1, 19, 30.

## ADDITIONAL COURSE

D-1 Anthropology \& Archeology: Anthropology 102, 105, 106, $109,132,141$;
D-2 Economics: Economics 1, 2, 10 (same as History 15), 16, 30;
D-3 Ethnic Studies: Chicano 2, 80; History 43, 44; Spanish 10, 26;
D-4 Gender Studies: Anthropology 109, History 52; Psychology 32;
D-5 Geography: Environmental Science 17; Geog 2, 7, 14 (same as Environmental Science. 17), 21, 22, 31;

D-6 History: Economics 10 (same as History 15); History 3-6, 8, 11, 12, 13 , $14,15,20,21,27,29,30,39,40,41,42,43,44,52,86,87$; Spanish 10, 16;
D-7 Interdisciplinary Social/Behaviorial Science: Journalism 100; Speech 121, 122;
D-8 Political Science, Government and Legal Institutions: Administration of Justice 1, 2, 4; Chicano 80; Law 3; Political Science 1, 2, 7, 14, 19, 30;
D-9 Psychology: Child Development 1 (same as Psychology 11);
Psychology 1, 3, 6, 11 (same as Child Development 1), 12, 13, $14,16,17,32,40,41,52,66$;

D-0 Sociology: Administration of Justice 67, 75; Sociology 1-4, 8, 11, 13, 21, 28, 29.

## AREA E - LIFELONG UNDERSTANDING and SELF-DEVELOPMENT

(3 semester or 4-5 quarter units. A maximum of 1 unit of Physical Education Activity Courework may be counted toward the unit requirement.)

Biology 39; Environmental Science 1; Health 8, 9, 10, 11, 99A; Physical Education 90, 91, 100-700 activity courses (maximum of 1 unit total), Dance 401, 403, 434, 437, 440, 446, 801; Dance Specialties 441; Dance Techniques 101, 290, 410; Personal Development 40; Psychology 3, 32, 36, 40, 41, 52, 60; Philosophy 19; Sociology 28.

## COURSES WHICH MAY BE USED IN THE PLAN

1. Courses which are required for your major may also be used for General Education.
2. Course work completed at Colleges \& Universities outside the California Community College system may be used. Approval is obtained by filing a petition for "PASS-ALONG" certification in the Graduation Office.
3. A course found in more than 1 area may be counted only once.
4. Courses taken at other California Community Colleges are counted only in the area(s) where they are listed for that college.
5. Courses taken at a foreign institution may not be used on the Certified Plan.

## TO TRANSFER

Use the CSUMentor website at www.csumentor.edu to research all your CSU transfer requirements. The basics: A student must complete 60 or more transferable units with a minimum GPA of 2.0 or better ( 2.4 for nonresidents), be in good standing at the last college or university attended, and have completed or made up any missing college preparatory subject requirements. In addition, for admission purposes, all CSU general education requirements in Area A and B4 must be complete before transfer with a "C" or better in each course. But, there's more, come see a Pierce counselor to ensure you are on the right path.

Certain programs for which there are more applicants than there are spaces available, i.e. impacted programs, have additional screening requirements. See the CSUMentor website for details.

## REQUIREMENTS FOR THE MAJOR

Courses required by the CSU campus for the major should be taken as part of, or along with, General Education Requirements. For some majors, the preparation is quite extensive. Please use Assist, the OFFICIAL statewide transfer information website at www.assist.org, for major preparation requirements. If your major isn't listed be sure to check with the CSU campus to be sure it's offered. If it is, check the CSU campus catalog for requirements and see a Pierce Counselor for help.

## CERTIFICATION

Certification means that Pierce College has verified that you have completed the lower division General Education requirements for the California State University. Certification from a community college is important because without it you will be held to the general education requirements specific to the CSU campus you transfer to. This usually means more coursework. It is your responsibility to get certified. Partial certification is permitted. You must request certification through the Pierce Graduation Office.

## AP EXAMS

Please consult a Pierce Counselor for details on which AP exams can be applied to the plan as well as how many units the CSU will grant you for each exam.

## Courses Offered on a Credit /No Credit Basis

The college offers courses which students may elect to take on a credit/no credit basis.

1. Students have the option of selecting credit/no credit only for those courses listed below.
2. Selection of courses to be taken on a credit/no credit basis must be made during the time indicated in the schedule of classes for the semester in which the course is taken. Late requests will not be accepted. Credit/no credit grading petitions for short-term classes will be accepted during the first two weeks of the class.
3. Only one course per semester may be selected to be graded on a credit/no credit basis, (this does not include those courses in which all students are evaluated on a credit/no credit basis).
4. A credit grade is granted for performance which is equivalent to the letter grade of " C " or better.
5. Once a course has been selected to be graded on a credit/no credit basis, a student cannot receive a letter grade for the course. The decision to take a course on this basis is irrevocable.
6. The general practice at most four-year colleges is not to accept credit/no credit grades for courses required in the major or preparation for the major. A student planning to transfer to UCLA is required to have at least 42 units in regular letter grades.
7. Students taking the credit/no credit option are held to the same academic standards as students receiving letter grades.

## Accounting -1, 2, 15, 17

American Sign Language - all courses
Anatomy - no courses
Animal Science - all courses
Anthropology - 104, 105, 106, 109, 111, $113,119,121,132,141,150^{*}$
Architecture - 5
Art - 101, 102, 103, 105, 111, 137, 138, 139, 200, 201, 300, 301, 500, 501, 519, 604, 700, 708A, 708B

Astronomy - 1, 2, 3
Automotive Service Technology - 1, 20, 21, 25
Biology - 3, 10, 11*, 12*, 18*
Business - 1, 5
Child Development - no courses
Cinema-3, 18
Computer Applications and Office Technologies - all Courses
Computer Science - 501, 506, 507, 508, 514, 530, 533, 534, 535, 537, 547, 550, 553, 554, 555, 572, 575, 578, 581, 587, 588
Dance - 101, 290, 410, 801, 802, 803, 804, 812, 814, 818, 819, 820, 821
Dance Activities - 441, 437
Economics - all courses
Education - 1
Electronics - 2
Engineering, Mechanical - 110, 115, 210, 215
English - 20, 23, 33, 127, 203, 204, 205, 206, 207, 208, 209, 211, 212, 213, 214, 215, 216, 239, 240, 250, 251, 252, 270
Environmental Science - 9, 31
Equine Science - all courses

Escrow - no courses
Finance - 1, 2, 8
French - all courses
Geography - 3, 5, 12, 14, 20A, B, C, D, E, F, $21,22,31,32,33,34,35,36,37$
Geology - $22 \mathrm{~A}^{*}, \mathrm{~B}^{*}, \mathrm{C}^{*}$, and $\mathrm{D}^{*}$
GIS - all courses
History - all courses
Humanities - 6, 61
Industrial Technology
Drafting - 110, 115, 210, 215
Machine Shop/CNC - 130, 140, 444, 448

Welding - 161, 261, 361, 461
Italian - all courses
Japanese - all courses
Journalism - no courses
Law - all courses
Learning Foundations - no courses
Linguistics - 1
Management - 2, 6, 13, 31, 33
Marketing - 1, 11, 21, 31
Meteorology - 3
Microbiology - no courses
Music - 101, 111, 112, 152, 321, 411, 601, 611, 621, 650
Oceanography - 12, 14
Personal Development - 40
Philosophy - all courses
Photography - 10, 20
Physical Education-90A, 90B, 91, 96, 256, 289, 440
Physical Science - 1
Physics - 12
Physiology - no courses

Plant Science - all courses
Political Science - all courses
Psychology - all courses
Public Relations - 1
Real Estate - 1, 3, 5, 7, 9
Recreation - all courses
Sociology - all courses
Spanish - all courses
Special Education - no courses
Speech Communication - 111, 113
Statistics - 1, 7
Supervision - 1, 2, 6, 11
Theater Arts - all courses

Note: The following courses are graded as credit/no credit only. The student does not have the option of receiving a letter grade:
American Sign Language - 101, 185, 285, 385

Anthropology - 145, 150A, B, and C
Biology - 11A, B, and C; 12A, B, C; 18A, B
Business - 10
CAOT - 64, 75, 75A
French - 8, 10, 101, 185, 285, 385
Geology - 22A, B, C and D
Italian - 8, 185, 285, 385
Japanese - 8, 185, 285, 385
Learning Skills - all courses (except 185)
Nursing 442, 450, 463, 185, 285, 385
Personal Development - 1, 4, 8, and 15
Spanish - 8, 24, 101, 185, 285, 385

* All students graded on credit/no credit basis only. A petition is not needed.


## KEY

(C) Certificate - 1 yr. Program
(2) AA or AS Degree

Major Code
0502.00
0112.00
0101.00
9901.00
0899.0
9922.0
0957.00 Architecture - Construction Technology (C) (2)
0201.00
9902.0
1002.00
9910.02
0948.00 Automotive Service Technology (C) (2)
0514.04 Basic Computer Applications (C)
0502.01 Basic Computerized Accounting (C)
9904.00 Biological Sciences (Transfer)
$0501.00 \quad$ Business Administration (2)
$9905.00 \quad$ Business (Transfer)
9906.00
9907.00 Computer Sciences (Transfer)
0934.04 Computer Technology (2)
1008.00 Dance (2)
0953.00 Drafting - Mechanical (C) (2)
9922.04 Economics (Transfer)
9908.00 Education (Transfer)
0934.00 Electronics (2)
0934.01 Electronics - Analog (C)
0934.02 Electronics - Communication (C)
0934.03 Electronics - Digital (C)
9909.00 Engineering (Transfer)
9915.01 English (Transfer)
$9910.00 \quad$ Fine \& Applied Arts (Transfer)
$0109.20 \quad$ Floral Design and Management (C) (2)
$9911.00 \quad$ Foreign Language (Transfer)
$1102.00 \quad$ French (2)
$0109.02 \quad$ Gardening - Advanced (C)
$0109.01 \quad$ Gardening - Basic (C)
0109.03 Gardening - Professional (C)
9922.06 Geography (Transfer)
$1030.00 \quad$ Graphic Design (C) (2)
$0109.04 \quad$ Greenhouse and Nursery Industry (2)
$9912.00 \quad$ Health (Transfer)
9922.05 History (Transfer)
$0102.00 \quad$ Horse Science (C) (2)
$0109.00 \quad$ Horticulture - General (2)
$9915.00 \quad$ Humanities (Transfer)
$0956.00 \quad$ Industrial Technology - General (C)
1104.00 Italian (2)
$0602.00 \quad$ Journalism (2)
0109.10 Landscape Installation and Maintenance Industry (2)
0109.11 Landscape Planning and Design (2)
0109.12 Landscape Technician - Advanced (C)
0109.13 Landscape Technician - Basic (C)
2202.10 Latin American Studies (2)
9914.00 Law (Transfer)
0514.10 Legal Office Procedures (C) (2)
4901.00 Liberal Arts and Science (C) (2)
9916.00 Library Science (Transfer)
$0956.30 \quad$ Machine Shop Technology (C) (2)
0506.30 Management and Supervision (C) (2)
$0509.50 \quad$ Marketing (C) (2)
$9917.00 \quad$ Mathematics (Transfer)
0934.05 Microcomputer Service Technology (C)
0701.01 Microcomputers and Small Business Systems (C)
$1004.00 \quad$ Music (2)
9910.04 Music (Transfer)
$0115.00 \quad$ Natural Resources Management

## Major Code

0799.00
0956.31
1203.00
0514.01
0514.05
9915.09
0602.01
9919.00
9922.07
0901.00
0102.10
0514.00
0704.02

Programming for Computer Science (C) (2)
Real Estate (C) (2)
$9922.00 \quad$ Social Sciences (Transfer)
9922.08 Sociology (Transfer)
$1105.00 \quad$ Spanish (2)
1007.00 Theater (2)
1006.01
1006.00
9910.07
0003.00
0102.11
0956.50
0514.02
0514.03

## Title

Network Technology (C)
Numerical Control Programming (C) (2)
Nursing - R.N. (2)
Office Administration (C) (2)
Office Communications (C)
Philosophy (Transfer)
Photojournalism (C) (2)
Physical Sciences (Transfer)
Political Science (Transfer)
Pre-Engineering (2)
Pre-Veterinary Medicine (2)
Professional Secretary (C) (2)
Programming for Business (C) (2)

Theater - Costume (2)
Theater - Technical (2)
Theater (Transfer)
Undecided
Veterinary Technology (2)
Welding (C)
Word Processing, Basic - Microsoft Word for Windows (C)
Word Processing, Basic - WordPerfect (C)

## Educational Goals

1. Prepare for a new career (acquire new job skills)
2. Advance in current job/career (update job skills)
3. Discover/develop career interests, plans and goals
4. Obtain a two-year vocational degree without transfer
5. Obtain a two-year Associate's degree without transfer
6. Obtain a vocational certificate without transfer
7. Obtain a Bachelor's degree after completing an Associate's degree
8. Obtain a Bachelor's degree without completing an

Associate's degree
9. Maintain certificate or license (e.g., Nursing, Real Estate)
10. Improve basic skills in English, reading or math
11. Complete credits for high school diploma or GED
12. Personal development (intellectual, cultural)
13. Undecided on goal

## How to Read the Course Descriptions



## Key To Transfer Credit Codes

UC This course is acceptable for credit at all branches of the University of California.
$\dagger$ UC The granting of transfer credit by a UC campus for fieldwork or directed study courses is contingent upon a review of the course outline after transfer. A UC student must submit a petition to initiate this process.
A UC campus will accept a maximum of 3 semester units of directed study or field work in any one semester and a total of 6 units maximum in any and all appropriate subject areas combined.
For further clarification, please consult a counselor.
CSU This course is acceptable for credit at all branches of the California State University System.
NDA Non-Degree Applicable. Some courses which are offered for college credit, but which cannot be applied toward graduation requirements for the Associate Degree are designated by the code NDA.
CAN The California Articulation Number System identifies some of the transferable, lower division, introductory (preparatory) courses commonly taught on California college campuses. The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN courses on another participating campus.

## Accuracy Statement

The Los Angeles Community College District and Los Angeles Pierce College have made every effort to make this catalog accurate and may, without notice, change general information, courses, or programs offered. The reasons for change may include student enrollment, level of funding, or other issues decided by the district or college. The district and college also reserve the right to add to, change, or cancel any rules, regulations, policies and procedures as provided by law.

## Accounting

## Addiction Studies

## 1 Understanding Addiction and Counseling (3) <br> Lecture 3 hours.

Overview of community prevention, education, outreach and referral. A study of the nature of alcoholism/chemical dependency, including intervention, treatment and recovery and counseling chemically dependent persons.

2 Drugs In Perspective (3)
Lecture 3 hours.
Pharmacology and physiology of alcohol and other drugs. The fundamental principles of the action of alcohol and other drugs. Pharmacological and physiological implications of tolerance, habituation, and excessive consumption of alcohol and other drugs. The psychophysical, cultural, and social implications will be presented.

## 4 Addiction Counselor Training (3)

Lecture 3 hours.
Participants will be trained in the listening and responding skills, learning to apply eight basic communication skills in one-on-one interactions with clients/patients, as well as learning counseling skills in the areas of empathy, values, and attitude exploration, and problem solving, with distinct applications to chemical dependency.

5 Group Skills For Addiction Counselors (3)
Lecture 3 hours.
A course to train participants in the skills and principles fundamental to facilitating a group, including group process, establishing goals, curative factors, starting a counseling group, observing a group, and making interventions, with special emphasis upon chemical dependency-specific issues in a group setting.

6 Management Skills For Addiction Program Administrators (3) Lecture 3 hours.
Deals with law and ethics, community prevention, education, outreach and referral, and personal and professional growth. Provides training in the basic managerial skills and principles necessary to function effectively at supervisory, administrative, or managerial levels in chemical dependency programs, health care settings, and agencies.

7 Addiction Treatment And Recovery (3)
Lecture 3 hours.
Intervention, treatment and recovery, including assessment, case management, orientation, treatment planning, relapse prevention, and after care planning. The therapeutic dynamics of Alcoholics Anonymous are compared to a number of different schools of psychology and programs of transformation, growth and development.

8 Special Issues In Addiction (3)
Lecture 3 hours.
Prevention, education, outreach and referral. Incorporating three issues in the field of chemical dependency: services for chemically dependent women; youth and prevention; and the initial visit.

9 Field Work For Addiction Personnel (3) - RPT 2
Lecture 1 hour; Laboratory 5 hours.
Prerequisites: Addiction Studies 1 or 2.
Supervised practicum, internship. Participants must be already knowledgeable about chemical dependency. An opportunity to document at least 160 hours working at an agency or in some situation directly in the field of chemical dependency, in addition to the classroom hours. Those seeking CAADAC certification will want to document a minimum of 255 fieldwork hours in addition to the 45 semester hours during the semester.

10 Addiction And The Family (3)
Lecture 3 hours.
A course on chemical dependency as a family disease, to include many theoretical and practical issues including: assessment, treatment, and recovery of the chemically dependent family, interventions, family counseling, family systems and theory, domestic violence, children of alcoholics, et al.

11 Drinking Driver Programs Personnel Training (3)
Lecture 2 hours; Laboratory 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
This course will provide present and prospective employees of Drinking Driver Programs with identified specific knowledge and skills necessary to function effectively and efficiently in a drinking driver program.

13 Addictive Diseases \& Lifestyle Disorders (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
Examines the pathology and nature of, and the intervention, treatment, and recovery processes involved in, a wide range of addictive diseases and lifestyle disorders: chemical dependency, including nicotine; sexual addiction; gambling addiction; eating disorders (including anorexia and bulimia); compulsive spending; workaholism and type "A" behavior; violence addiction battering, child abuse, and incest, including forms of state sanctioned violence.

14 Addiction And Theories Of Human Development (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
Focuses on developmental stages of body, mind, emotion, spirit (values and morals), and relationships, as they are effected by the disease process of chemical dependency, and positively enhanced by the health process of recovery. Theorists include Piaget, Freud, Erikson, Kohlberg, Fowler, Keene, Maslow and Frankl. Readings include biographies.

## 15 Sociological Aspects Of Addiction (3) CSU

Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
The basic principles and concepts of sociology with special emphasis upon the social phenomenon of chemical dependency, as it effects the family, and large sociological groups such as women, senior citizens, ethnic minorities, et al.

16 Continuing Recovery: Strategies And Basic Skills (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
This course covers applied methodology and "counseling skills" with respect to chemical dependency and other addictive disorders. Course contents may include: role play, case studies, interventions demonstrations, 12 Step Model of Recovery, Reality Therapy, Rational Emotive Behavioral Therapy, family systems analysis, relapse prevention theory and techniques.

## 17 Women And Addiction (3)

Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
A comparative analysis of women who become addicted. Relates to those unique factors that contribute to addictive disorders in women and the implication for treatment. Those addictions include alcohol, other drugs, overeating, smoking, and addictive relationships.

18 Addiction And Eating Disorders (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
To work effectively in the field of chemical dependency an understanding of eating disorders, such as bulimia, bulimia nervosa, and anorexia, is necessary, recognizing that their presence is a crucial issue in chemical dependency recovery.

## 19 Alcohol And Drug Education And Prevention (3)

Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
The study of prevention strategies in the field of alcohol and drug addictions stressing a positive and practical approach to the immediate reduction and eventual elimination of alcohol and drug abuse, and the disease of addiction.

20 Domestic Violence Counselor Training (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
Explores the nature of domestic violence; its signs and symptoms and its impact upon individuals, families, and society. Training in cultural and ethnic issues, counseling victims and families, intervention, treatment, and recovery processes for those affected by domestic violence. Prevention, education, and social policy issues are addressed.

21 Problem Gambling Counselor Training (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
Explores the nature of addiction and problem gambling and its impact upon individuals, families, and society. Cultural and ethnic issues are studied. Provides "advanced counseling skills" training in the intervention and recovery processes involved in treating addiction and problem gambling.

22 Prevention Specialist Training (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
An alcohol and drug abuse core prevention course to provide the basic knowledge and skills necessary for prospective prevention specialists to work effectively in prevention at the individual, social, and community levels, including learning prevention history, current strategies and recent developments.

23 Batterers' Intervention Facilitator Training (3)
Lecture 3 hours.
Note: This course provides 54 hours of continuing education for CADC I \& II, NCAC/MAC, CATC and MFT/LCSW; also through an officially approved provider number for licenses and certificates.
Designed to meet the standards contained in California Penal Code 1203.098 for Probation Department approved batterers' intervention facilitators. Provides basic knowledge and skills necessary to facilitate batterers' rehabilitation groups. Examines co-morbidity factors between domestic violence, substance abuse and addictions. Presents lesson plans and explanations for their use in a California "approved" 52-week intervention program for batterers.


1 Introduction to Administration of Justice (3) UC:CSU
May be offered as an honors section
Lecture 3 hours.
Philosophy and history of law enforcement, overview of crime and police problems, organization and jurisdiction of local, state and federal law enforcement agencies, survey of professional career opportunities and qualifications required for entry into a career in Administration of Justice.

2 Concepts of Criminal Law (3) UC:CSU
Lecture 3 hours.
An introduction to the historical development, philosophy, and basic legal concepts of criminal law. The course includes an examination of constitutional provisions, legal research, legal analysis, and the functioning of criminal law as a social force. It also includes a detailed examination of legal definitions, classifications of law, penalties, corpus delecti, criminal intent, parties to a crime, defenses to crime, and a brief introduction to laws of arrest and judicial procedure.

3 Legal Aspects of Evidence (3) CSU
Offered as Administration of Justice 99UA in Fall 2006.
Lecture 3 hours.
Origin, development, philosophy and legal basis of evidence; types and ways of presenting evidence; judicial decisions and statutory rules of evidence governing the admissibility of testimony, writing, and material objects at motions and criminal trial; constitutional and procedural considerations affecting searches and seizures, methods of identification, and admissions and confessions.

4 Principles and Procedures of the Justice System (3) UC:CSU Lecture 3 hours.
A detailed study of the role and responsibilities of the American court system and its purpose; an examination of the philosophy, history, structure, operation, concepts and services related to the judiciary; this course examines the prosecutorial process and court functions inclusive of a mock trial and sentencing options.

5 Criminal Investigation (3) CSU
Offered as Administration of Justice 99UB in Fall 2006. Lecture 3 hours.
This course provides for the fundamentals of investigation; crime scene, search and recording; collections and preservation of physical evidence; scientific aids; modus operandi; sources of information; interviews and interrogation; follow-up and case preparation.

## 8 Juvenile Procedures (3) CSU

Lecture 3 hours.
This course covers the juvenile justice system and related juvenile justice issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, history, theories, methodology, and special areas and laws unique to juveniles.

## 49 Narcotics and Vice Control (3) CSU

Lecture 3 hours.
The interrelations of organized crime to the community; the impact of covert criminal activities upon the social structure; theories of crime causation explored; symptoms of organized crime activity; narcotics and white collar crime; political influences in the legal system; management of crime control units. Book making and prostitution are also discussed.

## 67 Community Relations (3) UC:CSU

Lecture 3 hours.
A theoretical and conceptual overview of multicultural concepts and issues, including those relating to gender, age, religion, sexual preference, ethnicity and race; characteristics of victims and offenders; policing and community relations; sentencing disparities, death penalty, and prison populations.

75 Introduction to Corrections (3) CSU
Lecture 3 hours.
This course is designed to provide the student with an overview of the historical development, current concepts and practice, and explanations of criminal behavior; functions and objectives of the criminal justice system concerned with institutionalization and trends of adult and juvenile corrections, including probation and parole. It will 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.

## 160 Police Organization and Administration (3) CSU

 Lecture 3 hours.The effect of the organizational structure and administrative procedure on the implementation of police functions; assessment of the recruitment and hiring process, career advancement and leadership; administrative
problems of staffing and morale as a law enforcement employer.
185 Directed Study - Administration of Justice (1)
285 Directed Study - Administration of Justice (2)
385 Directed Study - Administration of Justice (3)
Conference 1 hour per unit.
911-941
Cooperative Work Experience Education -
Administration of Justice
See Cooperative Work Experience Education.

## Agriculture

AGRICULTURE courses are listed under ANIMAL SCIENCE, EQUINE SCIENCE (Mule Handling) and PLANT SCIENCE, and subject matter is organized as follows:

## Animal Science

| Agriculture-General | Animal Science 100-199 |
| :--- | :--- |
| Veterinary Technology (RVT) | Animal Science 400-499 |
| Animal Science | Animal Science 500-599 |
| Horse Science | Animal Science 600-679 |

Equine Science
Mule Handling
Equine Science 680-699

## Plant Science

| Agriculture-General | Plant Science 100-199 |
| :--- | :--- |
| Horticulture and Landscaping | Plant Science 700-899 |
| Natural Resource Management | Plant Science 900-999 |

911, 921, 971, 981
Cooperative Work Experience Education - Agriculture
See Cooperative Work Experience Education

## American Sign Language

## 1 American Sign Language I (4) UC:CSU

## Lecture 4 hours. <br> Recommended: Concurrent enrollment in ASL 101A.

Develops basic vocabulary and grammar of American Sign Language. Emphasis is placed on comprehension skills. Incorporates vital aspects of the Deaf culture and community. [Overview of topics include: pronouns, colors, interrogatives, negations, school, people, homes, family relationships, work, life events, daily activities, transportation, time/calendar, numbers, fingerspelling, opposites, food, places, sports, feelings/opinions. Functional/notional discourse behaviors are developed, including: conversational openers, greeting, identifying, introducing, asking/requesting, responding, comparing/contrasting.]

## 2 American Sign Language II (4) UC:CSU

Lecture 4 hours.
Prerequisite: American Sign Language 1 with a grade of "C"
or better or equivalent.
Recommended: Concurrent enrollment in ASL $101 B$.
Normally offered in the Spring semester only.
Completes the study of elementary vocabulary and grammar. Increased development of inflectional and non-manual behavior patterns. Incorporation of selected aspects of Deaf culture and community within receptive and expressive conversations. [Overview of topics include: grammatical features, such as, syntax, pronominalization, verb aspect/modulation, tense, number incorporation, adverbials, adjectivals, topicalization, spatialization; interactive behaviors, such as, requests, turntaking, making suggestions, giving feedback, interrupting; and cultural topics, such as, myths, social and political organizations, signaling devices, and technology within the Deaf community.]

## 3 American Sign Language III (4) UC:CSU

Lecture 4 hours.
Prerequisite: American Sign Language 2 with a grade of "C"
or better or equivalent.
Corequisite: Required concurrent enrollment in ASL101C for Interpreting Program students (Interpreting majors).
Recommended: Concurrent enrollment in ASL 101C for students not in the Interpreting Program (not Interpreting majors).
Normally offered in the Fall semester only.
Continued development of American Sign Language grammar, with special emphasis on idiomatic constructions. Provides further development of conversational techniques focusing on expressive skills. Expanded study of Deaf cultural issues. [Overview of topics include: language functions, such as, giving reasons, making requests, asking where, giving specific directions, correcting and confirming information, complaining, making suggestions, asking for permission, expressing concern, declining/explaining, asking for/giving definitions, describing objects, describing weekend activities, telling about disrupted plans; grammatical structures, such as, topic-comment, weak hand referencing, locatives, temporal aspect modulations, verb inflections, role shifting, conditional sentences, contrastive structure, classifier types, non-manual markers, number functions; discourse structures, such as, presenting informative speeches (ASL).]

## 4 American Sign Language IV (4) UC:CSU

Lecture 4 hours.
Prerequisite: American Sign Language 3 with a grade of " $C$ " or better. Corequisite: Required concurrent enrollment in ASL101D required. Normally offered in the Spring semester only.
Advanced study of American Sign Language vocabulary and grammar. Further development and refinement of American Sign Language skills and fluency. Accentuates aspects of Deaf culture and community through spontaneously generated conversations. [Overview of topics include: an ASL transcription symbol system, history and development of ASL (linguistic evolution), selected sign types, sentence types and associated non-manual grammar, time signs and associated modulations, pronominalization and associated spatial/referential grammar, verb types and associated inflection/modulation processes (i.e. temporal aspect distributional aspect modulations), classifier types and associated modulations, locative processes, and pluralization processes.]

5 Introduction to Interpreting (3) CSU
Lecture 3 hours.
Prerequisite: American Sign Language 3 with a grade of " $C$ " or better. Suggested concurrent enrollment in American Sign Language 4. Normally offered in the Spring semester only.
Surveys basic theories, principles, and practices of interpreting/ transliterating including basic ethical considerations. Includes an historical overview of the interpreting profession, discusses the professional role of the interpreter, and begins the development of interpreting/transliterating processing skills.

6 English to Sign Interpreting/Transliterating (4) CSU
Lecture 4 hours.
Prerequisite: American Sign Language 4 and 5 with a grade of " $C$ " or better. Corequisite: Concurrent enrollment in ASL 101E required. Suggested concurrent enrollment in American Sign Language 10 Normally offered in the Fall semester only.
Development of English-to-Sign interpreting/transliterating skills on a beginning level.

10 Sign to English Interpreting/Transliterating (4) CSU
Lecture 4 hours.
Prerequisite: American Sign Language 4 and 5 with a grade of " $C$ " or better. Suggested concurrent enrollment in American Sign Language 6 Normally offered in the Fall semester only.
Development of Sign-to-English interpreting/transliterating techniques and principles on a beginning level including such tasks as increasing receptive sign skills and English vocabulary/idioms fluency, develop discourse analysis skills, and vocal control to successfully convey intent of signers.

15 Linguistics of ASL (3) CSU
Lecture 3 hours.
Prerequisite: American Sign Language 2; and Anthropology 104 or Linguistics 1 or equivalent.
Provides the student with information and research concerning the phonetic, morphological, syntactic, and semantic properties of American Sign Language. Covers neurolinguistics, psycholinguistics, and sociolinguistics, as well as comparative studies of natural signed languages.

16 Creative Signing (2) CSU
Lecture 2 hours.
Prerequisite: American Sign Language 2
Suggested concurrent enrollment in American Sign Language 3.
Normally offered in the Fall semester only.
Studies the application of pantomime, visualization, facial expression and body language to the use of ASL. Includes techniques used in ASL storytelling and poetry.

22 Professional Issues and Practice I (2) CSU
Lecture 2 hours.
Prerequisite: American Sign Language 5 with a grade of " $C$ " or
better, or equivalent.
Recommended: Concurrent enrollment in American Sign Language 6 and 10. Normally offered in the Fall semester only.
Introduces students to theoretical and practical issues related to various community-based interpreting settings requiring specialized language and/or techniques. Development of vocabulary appropriate for a variety of community-based settings, analysis of the RID-NAD Code of Professional Conduct, and development of professional decision-making and problemsolving skills. [Overview of topics include: role, rights, responsibilities of interpreters and stakeholders; protocol and professional behavior; application of the RID-NAD Code of Professional Conduct; assessment of situations, settings, and clients; assessment of interpreter's skills and knowledge; time management; stress management; vocabulary related to specific community-based settings, such as: Medical, Counseling, Mental Health, Religion.]

23 Professional Issues and Practice II (2) CSU
Lecture 2 hours.
Prerequisite: American Sign Language 5 with a grade of " $C$ " or better, or equivalent.
Recommended: Concurrent enrollment in American Sign Language 55 and 65.
Normally offered in the Spring semester only.
Introduces students to theoretical and practical issues related to various educational interpreting settings ( K - post-secondary levels) requiring specialized language and/or techniques. Continued development of vocabulary appropriate for a variety of topics/settings, analysis of the RID-NAD Code of Professional Conduct, and continued development of professional decision-making and problem-solving skills. [Overview of topics include: roles, rights responsibilities of interpreters and stakeholders in the educational setting; protocol and professional behavior; application of the RID-NAD Code of Professional Conduct; assessment of situations, settings, and clients; assessment of interpreter's skills and knowledge; vocabulary related to specific educational-based topics/settings, such as: English, history, science, math.]

25 Conversational American Sign Language (2) CSU - RPT 3 Lecture 2 hours.
Prerequisite: American Sign Language 1 with a grade of "C" or better, or equivalent.
Provides opportunities for practical conversation on everyday topics, cultural material, and expansion of vocabulary according to student interest or need.

30 Fingerspelling I (1) CSU
Laboratory 2 hours.
Prerequisite: American Sign Language 1 or equivalent.
Normally offered in the Fall semester only.
Develops skills in expressive and receptive use of the Manual Alphabet. Deals with specific individual problems and techniques for corrections. [Overview of topics include: hand positioning (location and angle), handshapes, rhythm, fluency, spelling, and numbers; reception of fingerspelled handshapes, patterns and pauses/transitions.]

31 Fingerspelling II (1) CSU
Laboratory 2 hours.
Prerequisite: American Sign Language 30 with a grade of "C" or better or equivalent.
Normally offered in the Spring semester only.
Continued development of expressive and receptive Manual Alphabet skills. Emphasis on techniques to improve receptive skills. Attention given to expressive fluency and accuracy.

40 Introduction to Deaf Culture (3) UC:CSU
Lecture 3 hours.
Prerequisite: American Sign Language 1 with a grade of "C" or better or equivalent.
Normally offered in the Fall semester only.
Covers historical, philosophical, educational, psychological and social aspects of the deaf and hearing impaired. Emphasizes Deaf culture and the social processes affecting and influencing its member.

55 Interpreting (4) CSU
Lecture 4 hours.
Prerequisite: American Sign Language 6 and 10 with a grade of "C" or better, or equivalent; English 101 or CAOT 32.
Recommended: Concurrent enrollment in American Sign Language 23 and 65.
Normally offered in the Spring semester only.
Development of interpreting skills (English to ASL and ASL to English).
65 Transliterating (4) CSU
Lecture 4 hours.
Prerequisite: American Sign Language 6 and 10 with a grade of "C" or better, or equivalent; English 101 or CAOT 32.
Recommended: Concurrent enrollment in American Sign Language 23 and 55.
Normally offered in the Spring semester only.
Development of transliterating skills (spoken English to signed English and signed English to spoken English).

101 American Sign Language Laboratory (5) CSU
Lab 5 hours.
Note: This class is taught in 1-unit modules. No credit for repeated modules Prerequisite/Corequisite:
101A: Completion of American Sign Language 1 or concurrent enrollment in ASL 1.
101B: Completion of American Sign Language 1 or concurrent enrollment in ASL 2.
101C: Completion of American Sign Language 2 or concurrent enrollment in ASL 3
101D: Completion of American Sign Language 3 or concurrent enrollment in ASL 4
101E: Completion of American Sign Language 4 and 5 or concurrent enrollment in ASL 6.
This laboratory uses multi-media (video, audio, and computers) to enhance instruction. This is a credit/no-credit course. Students receive credit by spending at least 32 hours in the laboratory and handing in lab assignments to the instructor.

185 Directed Study - American Sign Language (1) - RPT 2
285 Directed Study - American Sign Language (2)
385 Directed Study - American Sign Language (3) Conference 1 hour per unit.
Prerequisite: American Sign Language 1 or equivalent
Allows students to pursue Directed Study in American Sign Language on a contract basis under the direction of a supervising instructor.

## Anatomy

Introduction to Human Anatomy (4) UC:CSU (CAN BIOL 10)
Lecture 3 hours; Laboratory 3 hours.
Recommended Preparation: Biology 3, 6 or 44.
Note: An anatomy and physiology requirement can also be satisfied by Physiology 8 followed by Physiology 9. (See Physiology).
Provides a basic course in human anatomy. Includes lectures and demonstrations on human organs and organ systems. Requires each student to dissect mammalian organs that are comparable in structure to the human organs, and to work with a dissected human cadaver.

## Animal Science

| Agriculture - General | Animal Science 100-199 |
| :--- | :--- |
| Veterinary Technology (RVT) | Animal Science 400-499 |
| Animal Science | Animal Science 500-599 |
| Horse Science | Animal Science 600-699 |

120 Ethical Issues of Using Animals (3) CSU
Lecture 3 hours.
Considers the ethical issues of using animals in research, education, for food production and as companions. Class discussions include the animal welfare/rights movements, the use of IACUCS, and the Animal Welfare Act.

180 Animal Care Experience (2)
Lecture 1 hour; Laboratory 2 hours.
This course is designed to provide veterinary science students with knowledge, skills, and abilities in animal care. Areas of study will include sanitation, housing, nutrition, grooming, restraint, training, and environmental enrichment requirements for both livestock and companion animals.

181 Field Work (10)
Laboratory 30 hours.
Supervised job experience extending occupational learning in the classroom at an on-the-job learning station related to the students' occupational goals.

302 Veterinary Receptionist Training Program (2) - RPT 1 Lecture 2 hours.
This program is designed to train individuals to work as a receptionist in a veterinary hospital. Students who complete this program will be issued a certificate of completion and will be ready to enter the job market.

401 Orientation to Veterinary Science (1) CSU
Lecture 1 hour.
Directs student exploration of Animal Health Technology and Veterinary Medicine as a career choice. Includes job tasks, job market possibilities, preview of current legislation and medical terminology.

402 Topics in Veterinary Technology (2) CSU
Lecture 2 hours.
Prerequisite: Animal Science 401.
Normally offered in the Fall semester only
Orients students into the Animal Health Technology Program. Includes medical terminology, veterinary ethics and discussion of the role of the technician in veterinary medicine.

410 Animal Nursing I (2) CSU
Lecture 2 hours.
Prerequisite: Approval to enter Animal Health Technology Program.
Studies the symptoms and treatments of diseases affecting small animals, vaccination protocol, pharmacology, first aid procedures, and veterinary dentistry.

411 Animal Nursing I Laboratory (1) CSU
Laboratory 2 hours.
Corequisite: Animal Science 410.
Provides for practical experience in performing specific skills involved with animal nursing.

412 Animal Nursing II (2) CSU
Lecture 2 hours.
Prerequisite: Animal Science 410.
Studies emergency procedures, care of critically ill patients, and an introductory study of birds and reptiles.

413 Animal Nursing II Laboratory (1) CSU
Laboratory 2 hours.
Corequisite: Animal Science 412
Continues Animal Nursing I Laboratory in providing practical experience in performing new technical skills involved in animal nursing

420 Clinical Procedures in Animal Care I (2) CSU
Lecture 2 hours.
Prerequisite: Approval to enter the Animal Health Technology Program. Offered Fall semesters only.
Prepares the student to perform common clinical procedures in the animal hospital or laboratory under the supervision of a veterinarian.

421 Clinical Procedures in Animal Care I Laboratory (1) CSU
Laboratory 2 hours.
Corequisite: Animal Science 420
Offered Fall semesters only.
Provides for practical experience in various clinical procedures needed by
the animal health technician.
422 Clinical Procedures in Animal Care II (2) CSU
Lecture 2 hours.
Prerequisite: Animal Science 420 and 421.
Offered Spring semesters only.
Prepares the student to perform additional clinical procedures with emphasis on surgery and anesthetics.

423 Clinical Procedures in Animal Care II Laboratory (1) CSU Laboratory 2 hours.
Corequisite: Animal Science 422.
Offered Spring semesters only.
Provides for practical experience in anesthesiology, surgical assistance and other aspects of clinical procedures.

430 Veterinary Clinical Pathology (2) CSU
Lecture 2 hours.
Prerequisite: Approval to enter Animal Health Technology program.
Offered Fall semesters only.
Provides a comprehensive introduction to modern practical methods in veterinary clinical laboratory analysis. Includes blood, urine, feces and
skin scrapings tests with emphasis on small animal species.
431 Veterinary Clinical Pathology Laboratory (1) CSU
Laboratory 2 hours.
Corequisite: Animal Science 430.
Offered Fall semesters only.
Provides practical experience in performing various clinical analysis examinations and procedures.

435 Veterinary Radiography (2) CSU
Lecture 2 hours.
Prerequisite: Approval to enter the Animal Health Technology program Offered Fall semesters only.
Considers radiological terms, safety, and techniques needed by the animal health technician to assist the veterinarian.

436 Veterinary Radiography Laboratory (1) CSU
Laboratory 2 hours.
Corequisite: Animal Science 435.
Offered Fall semesters only.
Provides practice in radiological techniques and film developing
as well as safe use of equipment.

441 Large Animal Nursing Laboratory (2) CSU - RPT 1
Laboratory 4 hours.
Prerequisite: Approval to enter Animal Health Technology program. Offered Spring semesters only.
Provides hands-on practical experience in performing procedures and husbandry practices common to large and laboratory animal species.Extensive practice in handling and restraint also provided.

## 460 First Aid for Companion Animals (2)

Lecture 2 hours.
Presents an overview of first aid situations and their treatments in dogs and cats, relative to animal facility employees and/or pet owners.

466 Avian Care and Husbandry (1)
Lecture 1 hour.
This course provides the students with information and practical training about pet birds. Topics include basic management principles such as housing and diet, common avian ailments, breeding techniques and behavior. Included will be aspects of aviary set-up and management.

470 Laboratory Animal Care (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Approval to enter Veterinary Technology Program.
Presents an introduction to laboratory animal care and husbandry. Topics include care and restraint of rabbits, guinea pigs, rodents and other pocket pets. Career opportunities will also be addressed.

480 Clinical Experience for Animal Technicians (3) CSU - RPT 2
Laboratory 9 hours.
Prerequisite: Agriculture 420 and/or Agriculture 422 with a grade of "C" or better.
Provides an opportunity to obtain specialized experience in a veterinary clinic through an internship program. During this internship program, students will be given varied practical experience in all aspects of veterinary assistance and will be able to coordinate this experience with their classroom instruction.

501 Principles of Animal Science (3) UC:CSU (CAN AG 6) Lecture 3 hours.
Provides a broad perspective of livestock management problems and decisions that must be made in livestock production. Covers the following class of livestock: beef cattle, dairy cattle, sheep, swine, horses, rabbits, llamas and poultry. Topics include breeds, feeding, and reproduction as well as other management and animal welfare activities.

505 Animal Nutrition (3) CSU
Lecture 3 hours.
Includes a general study of the constituents of feed (carbohydrates, proteins, fats, minerals, vitamins and water), their utilization by the animal body, the digestive system, the processes of digestion and assimilation of the various feed constituents. Course includes ration balancing and feed identification.

506 Urban Farm Animal Health and Nursing Techniques (2) Lecture 1 hour; Laboratory 2 hours.
Provides practical aspects of urban animal health and related care of farm livestock. Course encompasses the various preventative health programs, as well as nursing techniques for back-yard producers. Provides "hands-on" experience in performing husbandry practices common to each species.

510 Animal Health and Disease Control (3) CSU Lecture 3 hours
Relates the physiology of animals to animal health. Includes common animal diseases, their causes, prevention and control, the treatment of wounds and the relation of sanitation to disease prevention.

## 511 Anatomy and Physiology of Animals (3) CSU

Lecture 3 hours
Provides a basic study of the facts and principles of animal life. Includes detailed reference to the anatomy and physiology of domestic animals. Comparative anatomy and physiology is included.

512 Anatomy and Physiology of Animals Laboratory (1) CSU Laboratory 3 hours.
Corequisite: Animal Science 511.
Provides practical experience discovering principles and structures associated with the anatomy and physiology of animals. Microscope work and dissection of the cat are included.

## 515 Artificial Insemination (2)

Lecture 2 hours.
Considers techniques in the collection, evaluation, processing, storage, and shipment of semen. Studies insemination procedures and practices, and fertility problems. Field trips to selected locations will be required. Acceptable for DR 330, CPSLO.

516 Artificial Insemination Laboratory (1)
Prerequisite: Concurrent enrollment or completion of $A G 515$.
Laboratory 2 hours.
Involves on-hands experience in the rectovaginal cervical fixation method of artificial insemination of cattle. Heat detection and other management skills needed in artificial insemination.

530 Poultry Production (2)
Lecture 2 hours.
Studies economic, managerial aspects of the commercial poultry operation. Covers the particulars of breeding, care and housing of growing and laying stock, culling, and record keeping. Field trips to commercial poultry plants in the area.

531 Poultry Production Laboratory (2)
Prerequisite: $A G 530$ or concurrent enrollment.
Laboratory 3 hours.
A laboratory emphasizing the practical aspects of poultry production. Students will experience manipulation skills commonly practiced in poultry production.

596 Agricultural Enterprise Projects (10)
Laboratory 30 hours.
Prerequisite: Animal Science 540.
Involves the planning, development and completion of an individual or group animal science or crop production project under the guidance of a faculty advisor on the College farm. Usually the project will involve purchase of animals or crops, associated production costs, and eventual profit at time of sale.

601 Horse Production (3) UC:CSU
Lecture 3 hours.
Examines the history of the horse, including anatomy, conformation, predisposing factors to unsoundness, selecting, housing, and use.

602 Horse Husbandry (3) CSU
Lecture 3 hours.
Offered Spring semesters only.
Presents in advanced and detailed form breeding, mare and stallion selection, foaling of the mare, feeding and management of light horses, diseases, sanitation, and prevention of disease.

603 Equine Management Techniques (10)
Lecture 5 hours; Laboratory 10 hours.
Practical application of the management aspects of the horse industry, including participation in the management decisions associated with the College herd and facilities.

## 611 Farrier Science (2)

Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Animal Science 601 and 602.
Offered Spring semesters only.
Anatomy, physiology, and conformation of the horse's feet and legs. Basic principles of conformation and gait analysis in relation to hoof balance. Fundamentals of trimming, fitting and applying shoes.

615 Introduction to Rodeo (1)
Lecture 1 hour.
Familiarizes the student with the fundamentals of the sport of rodeo and changes occurring in the sport. Surveys the opportunities for a professional career.

616 Horse Show Activities (2) - RPT 3
Lecture 1 hours; Laboratory 2 hours.
Introduces and familiarizes students with the development of show horses. Organization and management of horse shows. Skills required for a professional career in the field of performance horses.

617 Intercollegiate Rodeo Activities (2) CSU - RPT 3 Activity: 10 hours.
Trains students for competition intercollegiate rodeo. Provides intensive practice in the various intercollegiate rodeo events. Familiarizes the student with fundamental rodeo arena procedures. Develops the physical dexterity and coordination necessary for participation in the sport of rodeo at college level. Students from this course will he selected to represent Los Angeles Pierce College at intercollegiate competitions.

620 Basic Equitation (1) CSU
Lecture 1 hour.
Corequisite: Animal Science 621.
Provides instruction for those interested in training to ride and handle horses. Includes grooming, saddling, bridling, parts and care of the equipment of horses, and riding techniques.

621 Horseback Riding Laboratory (1) CSU - RPT 3 Laboratory 2 hours.
Prerequisite: Animal Science 620 or con-current enrollment in Animal Science 620.
Beginning, intermediate, and advanced levels offered, but not necessarily every semester. Fundamental class in western and English riding designed to teach horseback riding to students with varying degrees of experience.

630 Beginning Equine Training (2)
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Animal Science 601 and 602.
Offered Fall semesters only.
Beginning equine training in the schooling and training of young horses for riding. Emphasis will be placed on controlling and conditioning the young horse in a manner safe for the student and the horse.

631 Advanced Equine Training (2)
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Animal Science 630.
Offered Spring semesters only.
Expands the concepts learned in Animal Science 630. Emphasis will be placed on horse and rider as a team.

640 Horse Show Organization and Management (2)
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Animal Science 601
A comprehensive study of horse show organization and management, with particular emphasis on accounting, insurance, labor management, marketing and advertising. Emphasizes adequate planning and preparation for success.

645 Equine Issues (5)
Lecture 5 hours.
Provides students opportunity to gain specific knowledge about horses and their care through short-term lectures, field trips, distance learning college-based seminars. Taught in 1-unit modules which vary in length but which provide 16 hours of instruction.

650 Equine Health and First Aid (2)
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Animal Science 601
Creates an awareness among horse owners, trainers, and stable managers of a healthy or sick animal; studies the cause and control measures which may be practiced. Helps the horse owner and the veterinary scientist communicate.

185 Directed Study - Agriculture (1) CSU - RPT 2

## 285 Directed Study - Agriculture (2) CSU

385 Directed Study -Agriculture (3) CSU
Conference 1 hour per unit
Allows students to pursue Directed Study in Agriculture on a contract basis under the direction of a supervising instructor.

## Anthropology

101 Human Biological Evolution (3) UC:CSU (CAN ANTH 2) Lecture 3 hours.
May be offered as an honors section.
Explores the field of physical anthropology emphasizing the evolution of the human species. Topics include human heredity, mechanisms of evolutionary change, human variation, and the reconstruction of human evolutionary history through the study of the fossil record and the study of our closest biological relatives, the living monkeys and apes. The philosophy of science and scientific method serve as foundations for this course.

102 Human Ways of Life: Cultural Anthropology (3) UC:CSU (CAN ANTH 4)
Lecture 3 hours.
May be offered as an honors section.
Presents a broad survey of human culture including the study of human society, language, religion, political and economic organization, with examples drawn from contemporary preliterate, peasant, and urban societies.

## 104 Human Language and Communication (3) UC:CSU

Lecture 3 hours.
Same as Linguistics 1. Credit not given for both courses.
Surveys the great variety of ways humans communicate, both verbally and non-verbally. The course focuses on the structure, function, and history of language, with selections on the sociology and psychology of language, language learning, and the origins and evolution of language.

105 Prehistoric Peoples (3) UC:CSU
Lecture 3 hours.
Surveys world prehistory from the appearance of anatomically modern humans to the development of urbanization. Traces the process and sequence of human cultural development around the globe, including Europe, the Americas, the South Pacific, Africa, and Asia.

106 Introduction to Archaeology (4) UC:CSU (CAN ANTH 6)
Lecture 3 hours; Laboratory 2 hours
May be offered as modules 106 (lecture 3 hours, 3 units) and 106B (laboratory 2 hours, 1 unit).
Introduces students to the field of modern scientific archaeology. Lecture outlines methods traditionally used by archaeologists and critiques these in light of current archaeological objectives. Techniques for describing and classifying artifacts are discussed, as are strategies for explaining culture change. Laboratory exercises focus on analysis and interpretation of maps, soils, remote sensing imagery, and actual archaeological remains.

## 109 Gender, Sex and Culture (3) UC:CSU

Lecture 3 hours.
This course provides a world-wide comparison of sexuality and gender as viewed from various perspectives, including the biological/evolutionary, the cultural, the psychological, the historic, and the prehistoric, especially as they relate to the experiences of males and females in contemporary Western society.

111 Laboratory in Human Biological Evolution (2) UC:CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Anthropology 101, or concurrent enrollment.
Offers laboratory exploration of selected topics in biological anthropology including genetics, human variation, the living primates, and human paleontology.

113 Field Archaeology (3) CSU - RPT 1
Lecture 1 hour; Laboratory 6 hours.
Normally offered in the Spring semester only.
Introduces students to the strategies and skills required to scientifically discover and process archaeological data in the field. Students learn how to locate, survey, map and excavate portions of a real archaeological site. Emphasis is on the systematic recovery of cultural remains, including detailed recording of artifact context and provenience.

119 Introduction to Forensic Anthropology (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Offers laboratory exploration of selected topics in Forensic Anthropology, including identification from bones and teeth, of age, sex, stature, ancestry, pathology, diet, demographics, and manner and cause of death.

121 Anthropology of Religion, Magic, and Witchcraft (3) UC:CSU Lecture 3 hours.
May be offered as an honors section.
Presents an anthropological examination of the phenomenon of religion in tribal, peasant, and industrialized societies, and how religion is integrated into culture. Topics include religious symbolism, ritual, magic, divination, witchcraft, and syncretism.

132 Native Peoples of North America (3) UC:CSU Lecture 3 hours.
Examines the indigenous inhabitants of North America from prehistoric times until the present. Archaeology, cultural ecology, linguistics, ethnohistory, and ethnography provide evidence for the unique cultures which have flourished in this region of the continent since the end of the Pleistocene. Contemporary issues in Native American studies, such as the ownership and repatriation of archaeological remains and Indian gaming, will also be explored.

141 Culture, Illness and Healing (3) CSU
Lecture 3 hours.
This course offers a cross-cultural approach to the study of health, disease, illness, suffering, childbirth, healing, and death. Healing systems in hunter-gatherer, tribal, peasant, and industrialized societies are contrasted Several theoretical perspectives are invoked while analyzing these systems, including ethnomedical, biocultural, interpretive, and political economical. Students examine not only what people do, whom they consult and where they go when they become sick, but how they ultimately comprehend and accept illness and misfortune in their world.

150 Current Topics in Anthropology (3) †UC:CSU
Lecture 3 hours.
Course may be offered as 1 unit modules, 150A, B, C.
Discusses selected topics of current interest in the fields of Physical Anthropology; Cultural Anthropology; Archaeology; and Linguistics.

185 Directed Study - Anthropology (1) †UC:CSU - RPT 2
285 Directed Study - Anthropology (2) †UC:CSU
385 Directed Study - Anthropology (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Prerequisite: Any two of the following courses: Anthropology 101, 102, 104, 106. Allows students to pursue Directed Study in Anthropology on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit Limit for Directed Study and Variable Topics courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Architecture

## UC Credit Limit: Maximum of 17 units.

110 Introduction to Architecture (1) UC:CSU - RPT 1
Lecture 1 hour.
UC Credit Limit: Maximum one unit.
Introductory course exploring the fields of architecture and construction technology. Students will gain an understanding of architecture and construction technology programs. Visits to architects' offices, building sites, advanced schools of architecture, and lectures.

111 Methods of Construction (2) CSU
Lecture 2 hours.
Emphasizes methods of construction in wood, steel and concrete.
121 Freehand Drawing I (2) UC:CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Corequisite: Environmental Design 221.
Drawing ability as developed primarily by pencil, ink, and watercolor. Study is made of composition, form, value, and scale, and centers mainly on drawing development employing architectural forms.

151 Materials of Construction (3) CSU
Lecture 3 hours.
Prerequisite: Architecture 172 and 111.
Studies the nature and characteristics of materials, along with their history, manufacturing, fabrication and appropriate uses for given construction purposes.

152 Equipment of Buildings (3) CSU
Lecture 3 hours.
Prerequisite: Architecture 172 and 111.
Applies the basic principles of design, selection and operation of equipment in buildings to water, plumbing, heating, air conditioning, lighting and acoustics.

162 Computer Aided Design and Drafting (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 172 and 173.
An introduction to computer design and drafting for architecture. Provides a survey of current CAD systems plus hands-on experience.

172 Architectural Drawing I (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Teaches the techniques of architectural construction drawings, their conventions and symbols through the preparation of simple construction details and drawings. Surveys the scope and personal requirements of the architectural profession and related building trades.

173 Architectural Drawing II (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 172 with a grade of " $C$ " or better.
Develops construction drawing skill and fundamental understanding of building by preparing plans with necessary details for wood frame construction.

201 Basic Architectural Design I (3) UC:CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 172 and Environmental Design 101.
Explores the nature and limitations of materials using two-dimensional studies of form and composition in black and white and color.

202 Basic Architectural Design II (3) UC:CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Environmental Design 101 or Architecture 201.
Extends the theory of color and the use of various materials in three- dimensional compositions.

210 Construction Estimating (3) CSU
Lecture 3 hours.
Studies methods used in determining quantities and costs of labor and materials as related to construction.

221 Architectural Rendering (2) CSU
Lecture 1 hour; Laboratory 3 hours.
Corequisite: Architecture 121.
Teaches the techniques of graphic rendering using various media. Stresses both freehand drawing and drafting board methods.

271 Architectural Drawing III (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 172 or 173.
Offers a study of construction methods, materials, and building ordinances. Requires students to prepare construction drawings for commercial buildings in concrete and steel or similar problems.

272 Architectural Drawing IV (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 173 or 271.
Offers a study of construction methods, materials, and building ordinances. Requires students to prepare design and preliminary drawings for small commercial-type building or similar problems.

## 291 Strength of Architectural Materials I (3) CSU

 Lecture 3 hours.Includes material relative to the strength, mechanical principles and design (stresses, tension, compression, shear, and bending) of building materials, and their uses in foundations, floors, walls, columns, and roofs.

185 Directed Study - Architecture (1) CSU - RPT 2
285 Directed Study -Architecture (2) CSU
385 Directed Study - Architecture (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Architecture on a contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - Architecture
See Cooperative Work Experience Education

## Art

101 Survey of Art History I (3) UC:CSU (CAN ART 2)
Lecture 3 hours.
May be offered as an honors section.
A survey of architecture, sculpture, and painting from the prehistoric, ancient, classical and medieval periods.

102 Survey of Art History II (3) UC:CSU (CAN ART 4) (ART 101+102=CAN ART SEO A)
Lecture 3 hours.
May be offered as an honors section.
Note: Art 101 is not a prerequisite for 102.
A survey of painting, sculpture, and architecture of the Western tradition from the fourteenth century to the twenty-first century. Attention is given to style, iconography, and the social, political, and economic context that accompanies a work of art.

103 Art Appreciation I (3) UC:CSU
Lecture 3 hours.
Recommended for non-Art majors. Recommended but not required or Art majors.
Furthers the understanding and appreciation of the visual arts. Works of art may be presented through field trips to museums and galleries.

105 History of Asian Art (3) UC:CSU
Lecture 3 hours.
A survey covering paintings, sculpture and architecture of Japan, China, and India.

109 The Art of Africa, Oceania and Ancient America I (3) UC:CSU Lecture 3 hours.
This course will consider selected topics in the history of Non-Western art from the indigenous cultures of Africa, the islands of the South Pacific (Oceania), and pre-European contact North America and Mesoamerica. The course will examine the social, economic, political and religious context of the production and use of the works of art considered. Students will learn about different art historical methodological approaches to the analysis of the material considered. Students will master art historical and artistic vocabulary, will learn to perform visual analysis of compositions of painting, sculpture, architecture, arts of the body and other media

## 111 History of Contemporary Art (3) UC:CSU

Lecture 3 hours.
Covers major trends in art from c. 1900 to the present day. Works of art are presented through slide presentations, class discussion and visits to museums, galleries and artists' studios.

## 119 Theories of Art (3) UC:CSU

Lecture 3 hours.
Geared to both studio and art history students. We will analyze artistic and aesthetic theories from ancient times to postmodernism and will examine various methodologies in order to understand movements and ideas which have played a crucial role in shaping the study of art.

## 137 Architectural History I: Prehistory to the Middle Ages

 (3) UC:CSULecture 3 hours.
Covers the history of architecture from prehistory to the Middle Ages. Stresses development of typology as well as an examination of the influence of social cultural, religious, political, and economic conditions that influenced changes in form and style.

## 138 Architectural History II: Late Middle Ages to Modern

 (3) UC:CSULecture 3 hours
Covers the history of architecture from the late Middle Ages to the Modern period. Focuses on changing types, as well as on technological advancements in building materials. Literary movements as well as social, economic, religious, and political influences will be stressed.

139 Architectural History III: Modern Architecture (3) UC:CSU Lecture 3 hours.
Covers the modern period of architecture, examining the changing range of architectural types, the impact of technology, the influence of Bauhaus, the theoretical schools, and the sociopolitical impact on the look of buildings.

201 Drawing I (3) UC:CSU (CAN ART 8)
Lecture 2 hours; Laboratory 2 hours.
Involves a variety of media, emphasizing visual perception, critical analysis, art fundamentals, and cultural history of drawing.

202 Drawing II (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 201.
Extends the experiences of basic drawing with special emphasis upon pictorial organization. Stresses historical cultural evolution of drawing.

203 Drawing III (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 202.
Extends the experiences of basic drawing with special emphasis in various color media. Stresses individual artistic development.

204 Life Drawing I (3) UC:CSU (CAN ART 24)
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 201.
Studies construction of and composition with the human figure. Stresses critical analysis of the use of the figure in historical context.

205 Life Drawing II (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 204.
Continuation of Life Drawing I, emphasizing figure construction and composition applying a variety of media and concepts.

206 Life Drawing III (3) UC:CSU
Prerequisite: Art 205.
Lecture 2 hours; Laboratory 2 hours.
Continuation of figure construction and composition applying a variety of media concepts.

207 Life Drawing IV (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 206.
Continuation of figure construction and composition applying a variety of tools and techniques. Independent projects are stressed.

209 Perspective Drawing I (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Develops the understanding and manual skills necessary in the making of drawings which accurately represent three-dimensional forms in one-, two- and three-point perspective, with multiple secondary vanishing points.

300 Introduction to Painting (3) UC:CSU (CAN ART 10)
Lecture 2 hours; Laboratory 2 hours.
Cultural awareness and historic foundations are integrated with classroom explorations of the potentials of painting. Through class assignments students develop a variety of painting techniques and a greater understanding of the medium.

301 Watercolor Painting I (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Offers experience in a variety of techniques. Emphasis on cultural history and criticism in the field of watercolor painting.

302 Watercolor Painting II (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 301.
Continuation of Watercolor I. Emphasis on composition through perceptual and conceptual approaches. Theory, history, and criticism in field of watercolor painting.

304 Acrylic Painting I (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 300 with a grade of "C" or better.
Continuation of Art 300.
305 Acrylic Painting II (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 304
Continuation of Art 304.
306 Acrylic Painting III (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 305
Continuation of Art 305.

307 Oil Painting I (3) UC:CSU
Laboratory 6 hours.
Stresses skills and techniques in the medium. Both traditional and contemporary approaches to ideas and materials are explored as a means of developing personal and/or professional expression.

## 308 Oil Painting II (3) CSU

Lecture 1 hour; Laboratory 2 hours.
*UC transferability pending approval.
In this course, students will expand skills and techniques in oil painting. Emphasis will be on composition and color exploration in the service of communicating individual ideas.

501 Beginning Two-Dimensional Design (3) UC:CSU (CAN ART 14) Lecture 2 hours; Laboratory 2 hours.
Introduces the elements and principles of two-dimensional design common to the visual arts. Integrates the theory of design with historical and cultural foundations. Applies basic design techniques to problems in visual perception and critical analysis.

502 Beginning Three-Dimensional Design (3) UC:CSU (CAN ART 16) Lecture 2 hours; Laboratory 2 hours.
Introduces the principles of three-dimensional design utilizing a variety of techniques and materials. Design theory is integrated with historical and cultural foundation. Students develop analytical visual skills and critical awareness.

## 503 Intermediate Design (3) CSU

Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 501.
Recommended Preparation: Art 201.
This course examines the practical applications of design in a more focused manner as it relates to the concepts of two-dimensional design. Emphasis will be placed on several color theory models as well as the different systems of structuring a composition. Line, shape, texture, value, color, movement, scale, balance, unity and variety, focal point, subject, content.

## 519 Display Techniques (3) CSU

Lecture 2 hours; Laboratory 4 hours.
Provides practical application of design concepts as they relate to exhibitions, environments, displays and art portfolios. Students will gain a working knowledge of successful commercial and college galleries. Exhibition preparation, installation, funding, gallery visits, and guest lectures will be part of the curriculum.

603 Typography (3) CSU
Lecture 2 hours; Laboratory 2 hours.
This is a fundamental course and an introduction to basic composition and principles of typography. The course includes a survey of type from its origins to current technology and an introduction to typographic nomenclature and type specifications. Using hand skills and the computer, projects focus on typographic design, resonance and composition. Students develop skills regarding visually interesting letterforms and their uses in typographic design with a focus on appropriate solutions, visual interest and craftsmanship.

604 Graphic Design I (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Recommended Preparation: Art 501.
Introductory graphic design: the field, its terminology; tools and working methods. The problem/projects consist of graphic design assignments for selected media. Introduction to graphics on the computer. Primary software for this course is Illustrator and Freehand.

605 Graphic Design II (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 604.
Recommended preparation: Art 201
A continuation of the principles of Art 604. Projects in advertising, publication design, packaging and corporate identity. Continuation of graphics on the computer. Primary software for this course is
QuarkXpress, Illustrator and Photoshop.

606 Graphic Design III (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 605.
Continuation of principles of Art 605. Graphic design workshop including computer graphics. Emphasis on corporate identity (logos, letterheads and promotional communications.) Portfolio preparation and evaluation. Primary software for this course is QuarkXpress, Illustrator and Photoshop.

615 Graphic Communications II (4)
Lecture 2 hours; Laboratory 4 hours.
Prerequisite: Art 614 or Art 604.
Continues Art 614 with greater emphasis upon graphic design skills and knowledge of contemporary processes in layout, preparation of artwork, and printing processes as they relate to the work of the advertising designer. Further refining of computer skills. Primary software for this course is InDesign, Illustrator and Photoshop.

616 Graphic Communications III (4)
Lecture 2 hours; Laboratory 4 hours.
Prerequisite: Art 615 or Art 605.
Continues studies in advertising, graphic design and layout, illustration, photography, and the operation of a graphic computer workstation that would be used in a job situation. Primary software for this course is InDesign, Illustrator and Photoshop.

617 Graphic Communications IV (4)
Lecture 2 hours; Laboratory 4 hours.
Prerequisite: Art 616 or Art 606.
Reviews and extends the factual material and practical skills included in previous courses. Includes preparation of a portfolio of student's work for use in obtaining employment. Primary software for this course is InDesign, Illustrator and Photoshop.

620 Illustration I (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 201.
Applies basic drawing techniques and design principles to problems in advertising and editorial illustration. Students will explore a variety of media and approaches oriented to contemporary demands in the field.

621 Illustration II (3)
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 620.
Continues Art 620 with additional emphasis on the use of markers for the production of full color comprehensive drawings and illustrations.

622 Illustration for the Graphic Artist (3)
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 621.
Extends basic principles and practices of advertising illustration to problems in graphic design and layout. Projects include the coordination of illustration with photography and other visual media.

650 Graphic Design for the World Wide Web (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 604.
This is a fundamental course in the application of the principles of design to building websites. Students will use a web interface design they have created to build and publish a third and fourth generation web site. Introduction to web creation software, Dreamweaver, Flash, and Fireworks.

651 Animation for the Web (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Art 650 or consent of Instructor.
This is a course in the application of animation or moving images for the web. It also furthers skills in building and design in building websites. Students will create images that they have constructed and apply movement to them to create an effective, fast downloading, browser and user-friendly site. Primary software is Flash.

700 Introduction to Sculpture (3) UC:CSU (CAN ART 12)
Lecture 1 hour; Laboratory 5 hours.
Provides experiences in designing and executing sculptural form; technical experiences include modeling, casting and fabricating with sculptural media. Historical and cultural antecedents are discussed with emphasis on developing sculptural awareness.

701 Sculpture I (3) UC:CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Art 700 with a grade of " $C$ " or better
Continues Art 700.

## 702 Sculpture II (3) UC:CSU

Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Art 701 with " $C$ " or better.
Continuation of Art 701.
703 Sculpture III (3) UC:CSU
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Art 702 with " $C$ " or better.
Continuation of Art 702.
708A Introduction to Ceramics A (2) UC:CSU
(Art 708A + B = CAN ART 6)
Lecture 1 hour; Laboratory 3 hours.
Recommended Preparation: Art 501 or 502.
This is an introductory course in the art of ceramics. Basic ceramic design and construction techniques including hand building and wheel throwing are explored. Surface enrichment and glazing techniques are presented.
The historical significance of ceramic art is investigated.
708B Introduction to Ceramics $B$ (1) UC:CSU
(Art 708A + B = CAN ART 6)
Lecture 1 hour; Laboratory 1 hour.
Recommended Preparation: Art 708A
Continuation of Art 708A with increased emphasis on craftsmanship and design. Basic wheel throwing and glaze decoration will be explored
further. Simple mold construction will be introduced.

## 709A Ceramics IA (2) UC:CSU

Lecture 1 hour; Laboratory 3 hours.
Prerequisite: Art 708 or $708 A$ \& $B$ with a grade of " $C$ " or better.
This course provides continued practice in the forming processes and surface treatments, with emphasis on design and craftsmanship. Basic skill at throwing to make fundamental pottery form is explored.

## 709B Ceramics IB (1) UC:CSU

Lecture 1 hour; Laboratory 1 hour.
Prerequisite: Art 709A.
Continuation of Art 709A with emphasis on the forming processes, design and craftsmanship. Basic glaze chemistry and kiln management are introduced.

## 710A Ceramics IIA (2) UC:CSU

Lecture 1 hour; Laboratory 3 hours.
Prerequisite: Art 709 or 709A \& B with a grade of "C" or better.
This course provides opportunities for continued practice in the forming processes and surface treatment with an emphasis on design and quality of craftsmanship.

## 710B Ceramics IIB (1) UC:CSU

Lecture 1 hour; Laboratory 1 hour.
Prerequisite: Art $710 A$ with a grade of " $C$ " or better.
This course is a continuation of Art 710A with emphasis on design and quality of craftsmanship. Beginning glaze chemistry and kiln firing are included.

## 711A Ceramics IIIA (2) UC:CSU

Lecture 1 hour; Laboratory 3 hours.
Prerequisite: Art 710 or $710 A$ \& $B$ with a grade of " $C$ " or better.
This course provides additional opportunities for practice in the forming processes and surface treatments. Emphasis is on the individually planned projects as well as assigned work. Personal direction in clay is encouraged.

## 711B Ceramics IIIB (1) UC:CSU

Lecture 1 hour; Laboratory 3 hours.
Prerequisite: Art 711A with a grade of "C" or better.
This course provides additional opportunities for practice in the forming processes and surface treatments. Emphasis is on the individually planned projects as well as assigned work. Personal direction in clay is encouraged. Other forms of firing are presented.

## 185 <br> Directed Study - Art Honors (1) †UC:CSU - RPT 2

285 Directed Study - Art Honors (2) †UC:CSU
385 Directed Study - Art Honors (3) †UC:CSU
Conference 1 hour per unit
Allows students to pursue Directed Study in Art on a contract basis under the direction of a supervising instructor.

## 911-941 Cooperative Work Experience Education - Art

 See Cooperative Work Experience Education$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC Campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Astronomy

## 1 Elementary Astronomy (3) UC:CSU

Lecture 3 hours.
Astronomy 1 with 2 same as Astronomy 3.
Surveys the material contents and workings of the universe at an introductory level designed to satisfy the general education science requirement, primarily for non-science majors. Emphasizes the physical principles essential to fundamental understanding in astronomy. Discusses philosophical and historical foundations, the tools of the astronomer, the solar system, stars and stellar evolution, galaxies and deep space, cosmology, and extraterrestrial life.

2 Elementary Astronomy Laboratory (1) UC:CSU - RPT 1
Laboratory and discussion, 3 hours.
Astronomy 1 with 2 same as Astronomy 3
Corequisite: Astronomy 1.
Supplements the material of Astronomy 1. Includes use of astronomical instruments, motions of the sky, the celestial sphere, star charts, constellation study, lunar and planetary motions, and classification of galaxies. Applies simple algebra and simple graphical methods to study of astronomical phenomena. Telescopic observations will be made whenever possible. May include occasional field trips to nearby astronomy facilities.

## 3 Introductory Astronomy (4) UC:CSU

Lecture 3 hours; Laboratory 3 hours.
Same as Astronomy 1 with 2
Combines lecture and laboratory content of Astronomy 1 and Astronomy 2. For further information see course descriptions of Astronomy 1 and Astronomy 2.

185 Directed Study - Astronomy (1) †UC:CSU - RPT 2
285 Directed Study - Astronomy (2) †UC:CSU
385 Directed Study - Astronomy (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Astronomy on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC Campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Automotive Service Technology

## 1 Automotive Engines (5) CSU

Lecture 3 hours; Laboratory 5 hours.
Presents a study of automotive engines. Encompasses cooling and lubricating systems. Students overhaul engines in the laboratory, including boring, pin-fitting, valve seat replacement, valve grinding, and other engine rebuilding procedures.

2 Suspension Brakes and Power Systems (5)
Lecture 3 hours; Laboratory 5 hours.
Introduces wheel, brake, and suspension systems and service, including instruction on power brakes, power steering systems, and anti lock braking systems. Provides training and supervised repair on automobiles under actual shop conditions.

3 Engine Diagnosis and Tune-Up (5)
Lecture 3 hours; Laboratory 5 hours.
Emphasizes automotive engine diagnosis and tune-up problems pertaining to fuel, ignition, starting and charging systems. Shop training in ignition, emission control, and fuel systems on automobiles.

4 Starting and Charging Systems / Automotive Electrical Circuits (5)
Lecture 3 hours; Laboratory 5 hours.
Deals with the theory and maintenance of charging and starting systems. Provides a working understanding of the electrical systems used on automotive machinery. Lab work includes repair work on starters, alternators, and trouble shooting components of the electrical system. Includes practice with the latest diagnostic equipment.

5 Standard Transmissions, Clutches, Drive Lines and Differentials (3)
Lecture 2 hours; Laboratory 2 hours.
Examines manual shift type transmission including front drive transaxles. Discusses drive line problems including clutch, differential, and axle systems. Provides laboratory practice on these assemblies.

6 Automatic Transmission Electronic Diagnostics and Repair (5) Lecture 3 hours; Laboratory 5 hours.
Provides lecture and laboratory work in the theory and servicing of several types of automatic transmissions currently in use.

7 Air Conditioning (3)
Lecture 2 hours; Laboratory 2 hours.
Presents the latest information in air conditioning systems and servicing. Has shop practice in repair and servicing of air conditioning systems.

20 Advanced Engine Diagnostics and Performance (4) - RPT 3 Lecture 3 hours; Laboratory 3 hours.
The theory, operation, and repair systems of automotive engine computer systems.

21 Computer-Controlled Electronic Fuel Injection Systems (3) Lecture 3 hours.
The theory, operation, and repair of computer controlled electronic fuel injection systems.

23 Enhanced Clean Air Car (3)
Lecture 2 hours; Laboratory 2 hours.
A State of California mandated course covering operation and repair of emission systems. Upon satisfactory completion of the course, students may obtain a letter for permission to take the state licensing exam. Note: The Pierce College Automotive Service Program is a California State Bureau of Automotive Repair Approved Training Institution.

24 Smog Check BAR Update Course (1) - *RPT 3
Lecture 1 hour.
*Additional repeats allowed by petition.
This short course is designed for automotive professionals who need to meet current smog check licensing requirements.

25 Fundamentals of Auto Mechanics (4)
Lecture 3 hours; Laboratory 3 hours.
May be offered as 1-unit modules: 25A (Lubrication and Inspection Procedures), 25B (Cooling and Ignition Systems), 25C (Tires and Braking Systems), and 25D (Electrical Systems).
Provides a comprehensive introduction to the design, operation, and repair of various automotive systems. Emphasis is placed on owneroperator vehicle maintenance.

32 Automotive Service Technology Projects Laboratory: Chassis and Suspension Systems (1)
Laboratory 3 hours.
Prerequisite: Automotive Service Technology 2.
Provides increased laboratory experience in the diagnosis and repair of automotive chassis and suspension systems.

34 Automotive Service Technology Projects Laboratory: Electrical Circuits (2)
Laboratory 6 hours.
Prerequisite: Automotive Service Technology 4.
Provides increased laboratory experience in the diagnosis and repair of automotive electrical circuits.

36 Automotive Service Technology Projects Laboratory: Standard Transmissions, Clutches, Drive Lines and Differentials / Air Conditioning (1)
Laboratory 3 hours.
Prerequisite: Automotive Service Technology 5.
Provides increased laboratory experience in the diagnosis and repair of standard transmissions, clutches, drive lines and differentials/air conditioning.

41 Precision Lower-End Engine Blueprinting and Assembly (3) Lecture 2 hours; Laboratory 2 hours.
This course provides a comprehensive understanding of automotive performance oriented lower end engine machining and assembly techniques. It discusses engine blueprinting for performance applications. Machining engine blocks, crankshafts, connecting rods and other related components are covered. Modifications to short block assemblies for performance applications are discussed.

42 Performance Chassis and Suspension Systems (3) Lecture 2 hours; Laboratory 2 hours.
This course provides a comprehensive understanding of automotive performance oriented chassis and suspension system upgrades. It discusses the effect springs, shocks and swaybars have on a performance vehicle. The effect of caster, camber and toe settings on a performance vehicle are covered. Modifications to a vehicle's steering and suspension systems are discussed for road course, oval and straight-line racing situations.

43 Dyno Tuning For Performance (3)
Lecture 2 hours; Laboratory 2 hours.
This course provides a comprehensive understanding of automotive performance tuning on a chassis dynamometer. It discusses performance upgrades to timing and fuel curves on both non-computer and computer controlled systems. Bolt-on performance upgrades such as forced injection systems, improvements to intake systems and exhaust upgrades are also discussed.

44 Precision Upper End Engine Assembly (3)
Lecture 2 hours; Laboratory 2 hours.
This course provides a comprehensive understanding of automotive performance oriented upgrades to an engine upper-end to include cylinder heads, valve train, intake systems and exhaust systems. It discusses the effect intake flow and exhaust flow have on a performance vehicle. Machining cylinder heads, valves and related components are covered. Modifications to cylinder head combustion chambers, ports, valve size, valve spring set-up, rocker arm geometry and push rod lengths are discussed for various racing situations.

45 Chassis, Suspension and Interior Fabrication Techniques (3) Lecture 2 hours; Laboratory 2 hours.
This course provides a comprehensive understanding of automotive performance oriented chassis, suspension and interior modifications, which enhance a vehicles safety and performance ability. It discusses fabrication and modification of various chassis and suspension systems for performance use. How to fabricate and/or install from kit form safety equipment such as roll bars and roll cages are covered. Fabrication and installation of interior tin are discussed and practiced.

## 48 Automotive Service Writing (3)

Lecture 3 hours.
This course provides a comprehensive understanding of automotive service writing. It discusses the rules and regulations required by the State of California. How to sell and price automotive repair procedures while keeping the customer satisfied will be thoroughly covered.

52 Advanced Brakes Steering and Suspension Systems (3) Lecture 2 hours; Laboratory 2 hours.
This course is part of the Ford Motor Company MLR (Maintenance and Light Repair) technician training program. The course prepares students for employment at local Ford or Lincoln/Mercury dealerships as well as upgrade training of current Ford technicians. The brake system diagnosis and repair along with the base steering and suspension class includes classroom instruction, hands on laboratory projects, and web based training on current Ford Motor Company vehicles.

## 54 Advanced Electrical Systems (3)

Lecture 2 hours; Laboratory 2 hours.
This course is part of the Ford Motor Company MLR (Maintenance and Light Repair) technician training program. The course prepares students for employment at local Ford or Lincoln/Mercury dealerships as well as upgrade training of current Ford technicians. The basic electrical diagnostic course includes classroom instruction, hands on laboratory projects, and web based training on current Ford Motor Company vehicles.

185 Directed Study - Automotive Service Technology (1) - RPT 2
285 Directed Study - Automotive Service Technology (2)
385 Directed Study - Automotive Service Technology (3)
Allows students to pursue Directed Study in Automotive Service Technology on a contract basis under the direction of a supervising instructor.

911-941
Cooperative Work Experience Education - Automotive Service Technology
See Cooperative Work Experience Education

## Biology

See also Anatomy, Microbiology, Oceanography, and Physiology.
3 Introduction to Biology (4) UC:CSU
Lecture 3 hours; Laboratory 3 hours.
Closed to students who have completed Biology 6.
This course presents a comprehensive study of the major principles of biology It covers topics such as cell structure and physiology; bioenergetics, development, genetics, basic ecology, population biology and evolution. This course meets the general education laboratory experience requirement. This course is not intended for life science, biology; or pre-professional (medical, dental) majors.

6 General Biology I(5) UC:CSU (BIOLOGY 6+7=CAN BIOL SEO A)
Lecture 3 hours; Laboratory 6 hours.
Prerequisite or Corequisite: Chemistry 101.
Note: This class meets off campus several times during the semester.
Biology 6 represents half of a one-year course designed for Life Science majors and those preparing for careers in medicine, pharmacy, and dentistry. The lecture focuses on the fundamental processes associated with living organisms, particularly those at the cellular and molecular levels of organization. The laboratory explores the biology of plants, protists, and invertebrate animals.

7 General Biology II (5) UC:CSU (BIOLOGY 6+7=CAN BIOL SEO A)
Lecture 3 hours; Laboratory 6 hours.
Prerequisite or Corequisite: Chemistry 101.
Note: Biology 6 is not a prerequisite for Biology 7.
Note: This class meets off campus several times during the semester.
This course is designed to complete the study of the basic principles of biology. The course includes a comparative study of the structure and physiology of vertebrate organ systems, the basic concepts of evolution, and the evolution of the vertebrates. The course also examines basic ecological concepts and populations and their relationships to biological communities.

## 10 Natural History I (4) UC:CSU

Lecture 3 hours; Laboratory 3 hours.
Note: Surveys of the local ecosystems are done during off campus field trips. Biological principles including evolution, adaptation and scientific methods are examined using the local environment. Includes the role of climate in the distribution of plant and animal species and a systematic survey of the common local plants, invertebrates, birds and mammals.

11 Natural History II (3) **UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Note: This course is taught in 1-unit modules. No credit for repeated modules.
Deals with the biology of the environment and the interrelationship of climate, animals, plants, and humans. Course will include an in-depth ecological and systematic survey of a few selected ecosystems of the world.

12 Natural History and Field Biology I (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Note: This course is taught in 1-unit modules. No credit for repeated modules.
Deals with the biology of the environment and the interrelationship of climate, animals, plants, and humans. Course will include an in-depth ecological and systematic survey of a few selected ecosystems of the world.

40 The Science of Biotechnology (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Biology 6 and Chemistry 101
This course provides a comprehensive introduction to the science of biotechnology by providing both the theory and hands-on experience with laboratory protocols that parallel the isolation, purification, and cloning of a gene and gene products. This course also provides students with an opportunity to gain experience with Southern and western transfers and work with primary and secondary antibodies.

44 Foundations in Biology for the Health Sciences (2) CSU Lecture 1 hour; Laboratory 2 hours.
This course is designed to present the theories and laboratory skills needed to succeed in Human Physiology and Microbiology. The overall breadth of course material is more narrow than Biology 3, but coverage of chemistry and genetics is more detailed.

46 Genetic Analysis (3) UC:CSU
Lecture 3 hours.
Prerequisite: Biology 6.
A course designed for Life Science majors as a continuance of their general biology studies. This course provides a comprehensive introduction to genetic analysis, examining topics such as chromosome analysis, population genetics, and genomics.

121 Lectures in Marine Biology (3) UC:CSU
Lecture 3 hours.
Same as Oceanography 12. Credit not given for both courses.
Introduction to the biology of the marine environment. A brief introduction to the physical conditions of the oceans is followed by a comprehensive examination of marine organisms. A strong emphasis is placed on understanding the biology of groups of organisms including morphology, feeding, reproduction, adaptations and ecology. A survey of marine communities involves developing an understanding the fundamentals of community analysis and application of knowledge of the biology of individual organisms as members of communities. Communities examined include kelp forests, coral reefs, deep sea, hydrothermal vents, mangroves, the rocky intertidal zone, sandy subtidal and Antarctica. Environmental issues of fisheries management and pollution are discussed.

## 122 Marine Biology Laboratory (2) UC:CSU

Laboratory 4 hours.
Same as Oceanography 14. Credit not given for both courses.
A laboratory and field course introducing students to the Southern California nearshore marine environment. Marine plants and invertebrates and fishes are examined with respect to morphology, physiological ecology, classification and ecology. A strong field emphasis includes studies of the rocky intertidal zone, wetlands, sandy beach and nearshore pelagic and benthic communities. Students design and execute a written community analysis project requiring them to pose hypotheses, formulate a sampling design, and to analyze, plot and interpret data. Students also participate in oceanographic research cruises and experience all aspects of shipboard sampling.

123 Introduction to Marine Biology (3) UC:CSU
Lecture 2 hours; Laboratory 3 hours.
Same as Oceanography 2. Credit not given for both courses.
This course is designed to be taught at a marine biology field station in the Sea of Cortez and maximizes the opportunities afforded by field study. The lecture, laboratory and field study are integrated to examine the physical attributes of the Gulf of California nearshore ecosystem as it influences the biology of the marine plants and animals of the region. Emphasis is placed on the interactions among species which determine their distributions and the organization of communities. The biology of plants, invertebrates, fish, birds, marine mammals and marine reptiles are examined. Experimental and observational studies of fish form and function, invertebrate and fish behavior, as well as marine mammal and fish behavior and ecology are done primarily while in the water snorkeling. Issues relating to fisheries and resource utilization, and future management and/or exploitation by 3rd world countries are examined in the microcosm of the Bahia de los Angeles area of the Sea of Cortez.

## 185 Directed Study - Biology (1) †UC:CSU RPT - 2

285 Directed Study - Biology (2) $\dagger$ UC:CSU
385 Directed Study - Biology (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Biology on a contract basis under the direction of a supervising instructor.

911-941
Cooperative Work Experience Education - Biology
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC Campus. This usually occurs AFTER transfer and may include recommendations from faculty.
${ }^{* *}$ UC Credit Limit: UC transferable only if all three modules (3 units) are completed.

## Broadcasting

1 Fundamentals of Radio and Television Broadcasting (3) CSU Lecture 3 hours.
Overview of the Radio-TV industry, including its emergence, roles of the networks, governmental regulation, social effects, legal and ethical aspects, programming and employment practices.

10 Radio Programming and Production (3) CSU
Lecture 2 hours; Laboratory 3 hours.
Introduction, by means of working on a campus radio station, to all aspects of radio station programming and production. Included are instruction and experience in the roles of disc jockey, sportscaster, commercial announcer and news broadcaster.

## Business Administration

Business Administration courses are listed separately under the following headings:

Accounting
Business International Business Management Marketing Real Estate Supervision

## Business

1 Introduction to Business (3) UC:CSU
Lecture 3 hours.
Designed to introduce or review the basic areas of business. This is a survey course. Topics covered include: Accounting, International Business, Finance, Marketing, Management, Business Law, Business Organization, and Careers.

5 Business Law I (3) UC:CSU (CAN BUS 8)
Lecture 3 hours.
This course includes an overview of Law and Society and specifically stresses the Court System, the Law of Contracts, Torts, Negligence, Crimes, Personal Property and Bailments, and Real Property.

10 Fundamentals of Tax Return Preparation (3) - RPT 3
Lecture 3 hours.
Introduces the fundamentals of Federal and California income tax procedures. This class is associated with the Voluntary Income Tax Preparation program (VITA) that allows students to practice preparing tax returns for residents in the community.

## 185 Directed Study - Business (1) CSU - RPT 2

285 Directed Study - Business (2) CSU
385 Directed Study - Business (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Business on a contract basis under the direction of a supervising instructor.

911-941
Cooperative Work Experience Education - Business
See Cooperative Work Experience Education

## Business

Communications

See course listings under Computer Applications and Office Technologies

## Business Computer Applications

See course listings under Computer Applications and Office Technologies

## Business English

See course listings under Computer Applications and Office Technologies

## Chemistry

Students whose native language is other than English are recommended to be enrolled in ESL 87 before enrolling in Chemistry laboratory courses. Chemistry courses require good reading and writing skills. It is recommended that students be enrolled in or eligible for English 28 before enrolling in any Chemistry course.

51 Fundamentals of Chemistry 1 (5) CSU (CAN CHEM 6)
Lecture 3 hours; Laboratory 4 hours.
Prerequisite: Mathematics 115 with a grade of " $C$ " or better, or equivalent skill level demonstrated through the mathematics placement process. Recommendation: Eligibility for English 28.
This course offers a basic introduction to concepts in inorganic chemistry with a brief overview of organic chemistry. It is designed for those students whose interests are in nursing, animal health technology, home economics, physical therapy, elementary education and for liberal arts students in need of a laboratory course in physical science. It is not intended for students planning to take Chemistry 101.

60 Introduction to General Chemistry (5) $\Delta \mathrm{UC}: C S U$
$\Delta$ No Credit if taken after Chemistry 101.
Lecture 3 hours; Laboratory 4 hours.
This class may be offered periodically as an Internet-based class with an on-campus laboratory. This course is typically offered in both the winter and summer intersession.
Prerequisite: Mathematics 115 with a grade of " $C$ " or better, or equivalent skill level demonstrated through the mathematics placement process. Recommendation: Eligibility for English 28.
The course consists of a theoretical and mathematical treatment of some of the fundamental principles in general chemistry. One focus is on developing a student's problem-solving skills- enabling them to find algebraic solutions to word problems. This will include a review of important mathematical concepts. A second major emphasis is on development of a basic vocabulary related to chemical concepts, including chemical nomenclature. The composition and structure of different types of matter, and changes that it undergoes will be highlighted. Several types of simple inorganic reactions will be presented and the significance of the Periodic Table of the elements will be explained. The laboratory work is intended to develop skills in measurement, observation, use of simple chemical glassware and equipment, and in making deductions from observations and communicating them in a written report. This course serves to prepare students for entering general chemistry (Chemistry 101).

101 General Chemistry I (5) UC:CSU (CAN CHEM 2)
Lecture 3 hours; Laboratory and discussion 6 hours.
This class may be offered periodically as an Internet-based class with an on-campus laboratory. This course is typically offered in both the winter and summer intersession.

## Prerequisites:

1. Chemistry 60 or equivalent with a grade of " $C$ " or better, or passing the Chemistry 101 Readiness Test.
2. Mathematics 125 with a grade of " $C$ " or better, or equivalent skill level demonstrated through the mathematics placement process.
Presents the principles and laws of chemistry as related to the structure of matter. Topics covered include a comparison of the states of matter; atomic structure and the periodic table; stoichiometry; thermochemistry and introductory thermodynamics; chemical bonding; solutions; solubility; acids and bases; introductory chemical equilibrium; phase changes; and an introduction to Molecular Orbital Theory. The laboratory work is intended to develop skills in observation, use of chemical glassware and equipment, making deductions from observations, analyzing results and communicating them in a written laboratory report.

## CHEMISTRY 101 READINESS TEST

It is recommended that all students planning to enroll in Chemistry 101 as their first chemistry course at Pierce College take the Chemistry 101 Readiness Test at the Assessment Center located in the Campus Center. Contact the Assessment Center at (818) 719-6499 for an appointment and an information sheet. Prerequisite courses taken at other accredited colleges or universities must be presented to the Assessment Center to be substituted for the Pierce Chemistry 101 Readiness Test. Results from the test are intended to assist students in enrolling in the class where they are most likely to succeed. Upon completing the test, students are advised of their placement and given their authorization to enroll. Students must pass the test within one year of when they register to enroll in Chemistry 101. A student who passes the test may take the exam more than once to maintain this recency requirement, but a student who fails may not repeat the test. Students who wish to challenge the recommendation of the readiness test should consult the Chemistry Department Advisor, Dr. Izzy Goodman, at (818) 719-6464 or goodmaii@piercecollege.edu. The prerequisites for Chemistry 101 are not waived on the basis of any assessment test scores.

102 General Chemistry II (5) UC:CSU (CAN CHEM 4) (CHEM 101+102=CAN CHEM SEO A)
Lecture 3 hours; Laboratory and discussion 6 hours.
This class may be offered periodically as an Internet-based class with an on-campus laboratory. This course may be offered in the summer intersession. Prerequisite: Chemistry 101 or its equivalent with a grade of " $C$ " or better. A continuation of Chemistry 101. Topics covered include a detailed study of chemical equilibrium as applied to analytical chemistry including solubility, complex ion, and redox equilibria, pH , buffers, weak acids, weak bases, monoprotic and polyprotic systems; thermodynamics; electrochemistry; the solid state; the relationship between structure and properties; kinetics; coordination chemistry and ligand field theory; visible spectroscopy; and the chemistry of selected metals and nonmetals. The laboratory work continues to develop skills in observation, the use of chemical glassware and equipment, making deductions from observations, analyzing results and communicating them in a written laboratory report.

211 Organic Chemistry for Science Majors I (5) UC:CSU
Lecture 3 hours; Laboratory and discussion 6 hours.
Prerequisite: Chemistry 102 or its equivalent with a grade of " $C$ " or better. This is the first part of a two-course sequence presenting the structure, nomenclature, stereochemistry, preparation and mechanisms of reactions of aliphatic and aromatic hydrocarbons and their derivatives. A mechanistic approach to reactions and a focus on multistep synthesis will be emphasized throughout the course. The laboratory presents the techniques of preparation, isolation and analysis of organic compounds employing standard and modern instrumental methods.

212 Organic Chemistry for Science Majors II (5) UC:CSU Lecture 3 hours; Laboratory and discussion 6 hours.
Prerequisite: Chemistry 211 or its equivalent with a grade of " $C$ " or better. This course will complete the study begun in Chemistry 211 of the organic functional groups of alcohols, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives and amines. It will also cover more specialized topics including the following: carbohydrates, amino acids and peptides, fatty acids and polymers; difunctional compounds, polycyclic bezenoid hydrocarbons, heterocyclic compounds, mass spectroscopy, NMR techniques and strategies in modern organic synthesis. A mechanistic approach to reactions and a focus on multistep synthesis will be emphasized throughout the course. The laboratory presents more techniques of preparation, isolation and analysis of organic compounds employing modern instrumental analysis.

221 Biochemistry for Science Majors (5) UC:CSU
Lecture 3 hours; Laboratory and discussion 6 hours.
Prerequisite: Chemistry 211 or its equivalent with a grade of " $C$ " or better. Normally offered in the Spring semester only.
The course is designed to provide a thorough introduction to the principles, concepts and terminology of biochemistry, with an emphasis on the structure and function of biomolecules, the role of intermediary metabolism in energy production and common biochemical laboratory techniques.Topics include the chemistry and properties of three groups of biological macromolecules (proteins, carbohydrates and lipids) and their building blocks, protein structure and function, enzyme catalysis, and the details of the central metabolic pathways (glycolysis, glycogenolysis, the citric acid cycle, electron transport, and oxidative phosphorylation) including their regulation and integration. Throughout the course the organizing principles of biochemistry and the distinctive characteristics of the living state will be emphasized. The laboratory exposes the students to a variety of biochemical techniques and how they are used to evaluate biomolecules and systems. These techniques include spectrophotometry, fractional distillation, various types of chromatography including paper, thin layer, and molecular exclusion and enzyme assays.

185 Directed Study - Chemistry (1) †UC:CSU - RPT 2
285 Directed Study - Chemistry (2) †UC:CSU
385 Directed Study - Chemistry (3) $\dagger \mathbf{U C}: C S U$
Conference 1 hour per unit.
Allows students to pursue Directed Study in Chemistry on a contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - Chemistry
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Chicano Studies

## 2 The Mexican-American in Contemporary Society (3) UC:CSU

 Lecture 3 hours.Examines current U.S. cultural and social issues relevant to the Chicano Community, advances in political organization and efficacy, and social problems remaining unresolved in Chicano communities in the United States with an emphasis on California and the Southwestern United States.

80 Chicano Politics (3) UC:CSU
Lecture 3 hours.
Examines U.S. history and political issues relevant to the MexicanAmerican Community, the strategies of Latino political activism in the United States, and social change movements, issue, and problems that are relevant to the Hispanic Community.

## Child Development

1 Child Growth and Development (3) UC:CSU
Lecture 3 hours.
Equivalent to Psychology 11. Credit not given for both courses.
Department of Social Services DS1.
Required for all Child Development majors and certificates.
An introductory Child Development course which covers the theory of human development focusing on growth from conception through adolescence. The physical, cognitive, and social-emotional domains, and ways in which biological and diverse environments influence growth, will be studied. Students identify typical and atypical development and apply strategies to promote healthy child development in their personal and professional lives.

## 2 Early Childhood: Principles and Practices (3) CSU

Lecture 3 hours.
Department of Social Services DS3.
Required for all Child Development majors.
A survey of Early Childhood Programs including philosophies and components of a quality program. Developmentally appropriate practices will be discussed in depth. The role of the teacher will be emphasized in relation to attitudes, goals, values and the total development of the child.

3 Creative Experiences for Children I (3) CSU
Lecture 3 hours.
Department of Social Services DS3.
The creative approach to program planning in areas of art, dramatic play, blocks, music and movement will be explored. Emphasis will be on the development of creative teaching strategies and the values of these curriculum areas.

4 Creative Experiences for Children II (3) CSU
Lecture 3 hours.
Department of Social Services DS3.
The creative approach to program planning in language arts, mathematics, social studies, science, perceptual motor and cooking will be explored. Emphasis will be on methods of presentation, values and evaluation of the child's experience.

10 Child Health (3) CSU
Lecture 3 hours.
This course includes information on the nutritional needs and physical and mental well being of children from birth to adolescence. Topics covered include: Childhood communicable diseases, accident prevention, children with special needs and creating safe environments.

11 Home, School and Community Relations (3) CSU
Lecture 3 hours.
Department of Social Services DS2.
Required for all Child Development majors.
This course focuses on the processes and results of the child's integration into the social world of home, school, and community. Emphasis is on socialization as a reciprocal and interactive process in which individuals are shaped by cultural forces, relationships, and experiences, while at the same time they influence their own culture, relationships, and experiences. It includes child behavior and development along with understanding cultural and developmental diversity in society and their impact on teaching, parenting, and family relations.

22 Practicum In Child Development I (4) CSU
Lecture 2 hours; Laboratory 6 hours.
Prerequisites: Child Development 1, 2, 3, and 4; health exam, TB test and consent of instructor.
Supervised practicum experience in an early childhood setting. The student will relate all previous theory courses to the practical application in the classroom. Students are assigned to a practicum site under the supervision of a CECMP Mentor Teacher or a master teacher to reinforce theory and to develop teaching techniques by working directly with children and staff.

23 Practicum In Child Development II (4) CSU
Lecture 2 hours; Laboratory 6 hours.
Prerequisite: Child Development 22; health exam, TB test and consent of instructor.
This is the second semester of supervised practicum teaching experience to be done in a different setting than the first semester. This course provides advanced practical application of theories covered in prerequisite courses.

30 Infant and Toddler Studies I (3) CSU
Lecture 3 hours.
Reviews physical, social-emotional, language and cognitive development during the period of infancy/toddlerhood. Focuses on infant/toddler group care and reviews the California Infant Care Regulations as they relate to this period. Addresses the role of the infant/toddler caregiver, importance of environment and play, and importance of relationships, security and separation. Infant/toddler diversity and varying philosophies are explored

31 Infant and Toddler Studies II (3) CSU
Lecture 3 hours.
A study of infant and toddler development and its relation to curriculum, designing environments, assessment, and intervention. Curriculum development and direct observation in infant and toddler programs are a requirement of the course.

38 Administration and Supervision of Early Childhood Programs I (3) CSU

Lecture 3 hours.
Department of Social Services DS6.
This course examines administrative principles and practices for early childhood programs. Topics covered include: licensing regulations, leadership skills, budget preparation and analysis, personnel management, parent involvement programs and community resources. Professionalism and quality standards are emphasized. Partially fulfills licensing requirements for the position of director.

39 Administration and Supervision of Early Childhood Programs II (3) CSU

Lecture 3 hours.
Prerequisite: Child Development 38.
Department of Social Services DS6.
This course will contain an in-depth study of the administration of an Early Childhood program. It will include updating of licensing regulations, budget preparation and analysis, staff relations, professional development, parent involvement and conferencing, working with governing boards and supervising agencies, an introduction to proposal and grant writing, and current research in the field.

## 42 The Child in a Diverse Society (3) CSU

Lecture 3 hours.
This course includes the philosophy, principles and methods related to working with young children from diverse backgrounds. Materials and experiences will be explored relating to diversity, including cultural, ethnic, ability, gender, social class and generation differences. Curriculum development, problem solving techniques and environmental designs will be studied from an inclusive perspective.

44 Programs for Children with Special Needs I (3) CSU Lecture 3 hours.
This course is designed for students interested in specializing in or working with children with special needs. Instruction focuses on accommodating and adapting the physical environment, instructional strategies and curriculum to meet the needs of differently abled children preschool aged and younger, and their families.

45 Programs for Children with Special Needs II (3) CSU Lecture 3 hours.
A study of programs for children with special education needs. A review of the characteristics of different types of exceptionalities and the educational implications will be discussed. Students will become familiar with strategies and techniques to adapt environments and curriculum to make accommodations for children with special needs across the continuum of instructional settings.

46 School Age Programs I (3) CSU
Lecture 3 hours.
Department of Social Services DS4.
Students will be introduced to school age care programs designed for those planning to work in before and after school programs. Topics to be covered include the developmental issues of school age children, program models, creating environments, and designing appropriate and effective experiences and curriculum.

47 School Age Programs II (3) CSU
Lecture 3 hours.
Students will be introduced to school age care programs. Course is designed for those planning to work in before and after school programs. Topics to be covered will be guidance of children, behavior, the child in the context of the family and community, and administration of programs.

## 65 Early Childhood Mentoring (2)

Lecture 2 hours.
A study in methods and principles of supervising teachers and student teachers in early childhood classrooms. Emphasis is on the role of experienced early childhood educators who function as mentors to teachers while addressing needs of children, parents and other staff.

172 Introduction to Careers in Child Development (1) Lecture 1 hour.
This course introduces students to a variety of career options available to Child Development majors. It explores career opportunities, qualifications required, resources available, as well as academic and professional support systems.

## Cinema

## 3 History of Motion Pictures (3) UC:CSU

Lecture 2 hours; Laboratory 2 hours
May be offered as an honors section.
Examines television and film as communicative art forms. Analyzes representative films and television programs as to formats, aesthetics, societal impact, and evolution as entertainment media.

104 History of Documentary Films (3) UC:CSU
Lecture 3 hours.
An historical overview of the art and craft of documentary and nonfiction films from the silent era to contemporary times, both American and foreign, with an emphasis on the "classics", propaganda, educational, docudrama and avant-garde.

107 Understanding Motion Pictures (3) UC:CSU
Lecture 3 hours.
Replaces Cinema 18. May be offered as honors section.
Analytical critical survey of motion pictures as communication medium via screenings, lectures, readings about "classic" and contemporary films, American and foreign, theatrical and non-theatrical.

## Computer Applications and Office Technologies

## 1 Computer Keyboarding I (3)

Lecture 2 hours; Laboratory 3 hours.
Note: Course may be presented in short-term modules - CAOT 1F, CAOT 1G, or CAOT 1H. Computer Applications and Office Technologies majors must take all three modules.
Develops fundamental skills in the operation of a computer keyboard. Permits students to learn to key business documents and to achieve a typing speed of at least 30 gross words a minute for 3 minutes with no more than 3 errors.

2 Computer Keyboarding II (3) CSU
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: CAOT 1 or 9 with a grade of " $C$ " or better OR the ability to key 30 words a minute for three minutes with three or fewer errors.
Continues to develop basic keyboarding skills and emphasizes formatting various kinds of business correspondence, reports, tabulations, and electronic forms using a Windows-based microcomputer.

9 Computer Keyboarding Improvement (1) - RPT 1
Laboratory 3 hours.
Prerequisite: CAOT 1 or 9 with a grade of " $C$ " or better OR the ability to key 30 words a minute for three minutes with three or fewer errors.
Improves typing techniques, speed, and accuracy through timed writings, corrective drills, and production problems. Students may enroll for two semesters, but the semesters may not be consecutive. This course may be taken concurrently with CAOT 2 if the student needs additional speed and/or accuracy building.

23 Legal Procedures 1 (5)
Lecture 5 hours.
Prerequisites: CAOT 2 and 71 OR ability to key 40 words a minute and use Microsoft Word to prepare documents.
Note: Course may be presented in modules CAOT $23 A$ and CAOT 23B
Presents an overview of the law office and duties of the legal office assistant. Provides instruction on preparing legal correspondence. Covers the court structure, filing court documents, and litigation procedures Emphasizes vocabulary and document preparation in family law; wills trust agreements, and probate; business law; real estate law; and criminal law. Introduces students to legal research.

## 31 Business English (3)

Lecture 3 hours.
Prerequisite: Students must be eligible for English 21.
Concurrent enrollment in CAOT 34 is recommended.
Develops competency in the fundamentals and mechanics of correct English usage, including grammar, punctuation, capitalization, number style, sentence structure, and written expression. Emphasizes appropriate methods of expression through sentence construction, paragraph development, and functional composition.

32 Business Communications (3) CSU
Lecture 3 hours.
Prerequisite: CAOT 31 with a grade of " $C$ " or better.
Develops the ability to write effective business memorandums, letters, e-mail messages, employment documents, and short reports. Stresses the problem-solving approach to create messages that inform, persuade, and convey negative news. Emphasizes the concepts of effective writing style such as organization, coherence, and unity as well as principles of grammar and punctuation of written business documents.

33 Records Management and Filing (2)
Lecture 1 hour; Laboratory 2 hours..
Recommended preparation: Eligibility for English 85 (ESL) or higher level English course.
Provides an intensive study of the principles of manual/computerized filing systems. Records management, automated records systems, retrieval, retention, transfer methods, and control procedures are demonstrated and discussed.

34 Business Terminology (2)
Lecture 2 hours.
Develops the ability to use the dictionary (printed and online) to locate the spelling, pronunciation, and definition of words. Emphasizes the spelling and definition of words that sound alike but are spelled differently and have different meanings. Develops an understanding of common business, computer, and Internet terms. Stresses vocabulary development and expansion.

39 Word Processing: Keyboarding and Operations (3) - RPT 2 Lecture 2 hours; Laboratory 3 hours.
Prepares students to become proficient in the use of word processing software and equipment. Develops skills and knowledge in the operation of Microsoft Word for Windows 2007.

55 Career Skills for the Workplace 2000 (3)
Lecture 3 hours.
Note: Course may be presented in short-term modules - CAOT 55A, CAOT 55B, or CAOT 55C. Computer Applications and Office Technologies majors must take all three modules.
Focuses on the important skills needed to survive in today's work force. Emphasizes specific skills such as telephone techniques, customer service, records management, and job search techniques. Stresses proper attitude, appropriate dress, and business etiquette.

64 Office Administration Laboratory (1) - RPT 2
Laboratory 2 hours.
Prerequisite: Concurrent enrollment in or completion of CAOT 1,2, 9, 23, $39,55,66,67,71,75,78,79,82,84,85,86,88,92,94,95,97,100$, $107,108,109,113,114$, or 120.
Develops competency in the fundamentals and mechanics of all the microcomputer applications classes taught in the Computer Applications and Office Technologies Department. Gives the needed practice to apply the principles learned to create business documents and those documents required in nonbusiness classes. Open entry-open exit. A credit/no credit class.

66 Voice-Recognition Software for Computer Input (1) - RPT 2 Laboratory 2 hours.
Note: Uses Dragon NaturallySpeaking Preferred 9.
Uses voice-recognition software (Dragon NaturallySpeaking) to input information into the computer by voice rather than by keyboard. Focuses on learning dictation commands and techniques for continuous voice dictation. Covers voice commands for formatting and editing documents as well as for all menu and keyboard manipulations.

67 Microsoft Outlook for the Office (1) - RPT 2 Laboratory 2 hours.
Covers addressing, composing, sending, and customizing e-mail using Microsoft Outlook. Includes managing contacts and mail. Provides instruction in using (1) Outlook's Calendar for scheduling appointments, planning meetings, and scheduling events; (2) Outlook's Tasks feature; and (3) Outlook's Notes feature. Emphasizes integrating Outlook's features. Reviews basic Windows commands and file management procedures.

70 Human Relations in the Office (3)
Lecture 3 hours
Prerequisite: CAOT 31 and 34.
Designed to help students develop an understanding of self as well as understand relations with others in family, social, business, and work situations. Teaches how to motivate, manage, and supervise others. Introduces students to assertion, problem-solving, and decision-making techniques. Acquaints students with a variety of self-help agencies and outside reference materials.

71 Voice-Recognition Software With Document Applications (3) CSU - RPT 2

Lecture 2 hours; Laboratory 3 hours.
Prerequisite: CAOT 31 and 34.
Offered in the Fall semester only.
Note: Uses Dragon NaturallySpeaking Preferred 9.
Uses voice-recognition software, Dragon NaturallySpeaking, in place of the computer keyboard to create documents and navigate the Internet. Covers dictation procedures and voice commands to input text, access program menus, and activate keyboard commands. Uses voice dictation to create e-mail messages, memorandums, letters, and other business documents. Reviews punctuation, capitalization, number usage, and word-usage principles in the context of creating business documents by voice.

75 Word Processing: Equipment Operation (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Designed to meet the needs of all students by providing the skills necessary to operate a word processing program on the microcomputer. Emphasis is placed on understanding the logic inherent in performing basic word processing operations in order to input, edit, and print reports, term papers, and letters. A credit/no credit class.

76 Keyboarding for Data Processing (1)
Laboratory 2 hours.
Develops fundamental keyboarding skills necessary to input information on the computer efficiently and accurately. Designed to meet the needs of the student by providing the skills necessary to input information. The course is a self-paced, individualized program. The class meets during the first session at a specified time, but the remainder of the course has flexible scheduling.

77 Microcomputer Accounting for the Electronic Office (3)
Lecture 3 hours.
Develops competency in the fundamentals and mechanics of bookkeeping theory as a basis for an understanding of microcomputer programs and applications in the electronic office. Includes acquaintance with accounting terminology, procedures, financial statements, merchandise inventory, and payroll. Introduces students to accounting software and concepts of microcomputer usage.

78 Microcomputer Accounting Applications for the Electronic Office (3) CSU - RPT 2
Lecture 1 hour; Laboratory 4 hours.
Prerequisite: CAOT 77 or Accounting 1.
Note: Uses QuickBooks Pro 2006.
Acquaints students with the use of the microcomputer for bookkeeping and accounting applications in the electronic office. Students receive hands-on experience in analyzing business transactions, keeping records, preparing financial statements, and generating financial management reports using the QuickBooks microcomputer software package.

79 Word Processing Applications (3) - RPT 2
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: CAOT 39 or 84, and CAOT 2.
Offered in the Spring semester only.
Introduces advanced techniques using Microsoft Word for Windows 2007. Develops competency in the expert features of desktop publishing, electronic forms, mail merge, tables, charts, outlines, indexes, tables of contents, comments, revision marks, hyperlinks, and creation of Web pages. Emphasizes use of good judgment and personal style in formatting, layout, and design.

81 Field Work (1) - RPT 1
Laboratory 3 hours.
Offered in the Spring semester only.
Provides an opportunity to obtain experience in an office in the specialized fields of legal office or word processing. Students are assigned two hours weekly to an office and are allowed one hour a week for travel time.

82 Microcomputer Software Survey in the Office (3) CSU - RPT 2 Lecture 2 hours; Laboratory 3 hours.
Introduces students to the use of the microcomputer and commercially available software (Microsoft Office 2007) used in business offices. Course provides hands-on introduction to personal computers, Windows, word processing, database, spreadsheet, graphics, and presentation software. Student gains basic knowledge necessary to interact with the computer. No previous computer operating experience required, although ability to keyboard is recommended.

84 Microcomputer Office Applications:
Word Processing (3) CSU - RPT2
Lecture 2 hours; Laboratory 3 hours.
Designed for learning word processing using a Windows-based computer and Corel WordPerfect. Develops competency in creating, editing, and manipulating documents of various types-memorandums, business letters, and reports. Emphasizes features such as copy, move, spell check, find and replace, columns, and tables. Stresses correct formatting, and provides instruction for font styles and attributes, background fill and lines, text boxes, and graphics.

## 85 Microcomputer Office Applications:

Spreadsheet (3) CSU - RPT 2
Lecture 1 hour; Laboratory 4 hours.
Designed for learning spreadsheet applications using a Windows-based computer and Microsoft Excel 2007. Develops competency in creating, editing, formatting, and printing worksheets and charts. Emphasizes analyzing data; using formulas and functions; preparing pie, bar, column, and line charts; creating, sorting, filtering, and summarizing databases; and creating macros. Stresses accounting applications and simplifying accounting procedures.

86 Microcomputer Office Applications:

## Database (3) CSU - RPT 2

Lecture 1 hour; Laboratory 4 hours.
Designed to teach office database applications using a Windows-based microcomputer and a relational database program, Access 2007. Covers records design, file creation and maintenance, data manipulation, report formats, and printing. Emphasizes office applications such as records for personnel, inventory, and sales. Includes graphing, as well as integration of a word processing program, to produce automated mailings.

88 Microcomputer Office Applications: Desktop Publishing (3) - RPT 2
Prerequisite: CAOT 39 or 84 and CAOT 2, or equivalent. Note: Uses Adobe InDesign CS2 software.
Provides instruction and hands-on training in desktop publishing using Adobe InDesign software with Windows-based desktop computers, laser printers, scanners, and other software programs. Includes preparing advertisements, flyers, business forms, reports, newsletters, and presentations.

92 Computer Windows Applications (2) CSU - RPT 2
Lecture 1 hour; Laboratory 2 hours.
Note: Uses Windows XP software.
Presents a brief look at computer hardware and software, with an in-depth study of a graphical user interface - Windows. Topics covered include examining and manipulating Windows, using Explorer, and applying file management techniques.

94 Microsoft Word Review for MOS Certification Examination (1) -RPT 2
Laboratory 2 hours.
Provides a review of Microsoft Word concepts needed to pass the Microsoft Office Specialist (MOS) examination for the Core Level. Emphasizes the objectives specified by Microsoft to attain certification. Offers also a comprehensive, up-to-date review for Word users who wish to refresh their skills and knowledge in using Word but do not wish certification

95 Microsoft Excel Review for MOS Certification Examination (1) - RPT 2
Laboratory 2 hours.
Provides a review of Microsoft Excel concepts needed to pass the Microsoft Office Specialist (MOS) examination for the Core Level. Emphasizes the objectives specified by Microsoft to attain certification. Offers also a comprehensive, up-to-date review for Excel users who wish to refresh their skills and knowledge in using Excel but do not wish certification.

96 Adobe Creative Suite Survey for the Office an the Web (3) RPT 2
Lecture 2 hours; Laboratory 3 hours.
Introduces Adobe InDesign, Adobe Photoshop, and Adobe Illustrator as they apply to use in business offices. Provides hands-on instruction on a wide variety of tools and techniques for creating highly professional documents that include text, images, and graphics. Covers the basic vocabulary specific to these programs. Students should have basic keyboarding skills and computer knowledge.

97 Introduction to the Internet for CAOT (3) - RPT 2 Lecture 2 hours; Laboratory 3 hours.
Develops the ability to access and use information from the Internet. Focuses on using browsers, Internet Explorer and Netscape, to explore resources on the World Wide Web. Provides instruction on using e-mail, obtaining information through search sites, capturing text and information from Web pages, and developing a Web site using Microsoft Word. Explores business, career, government, news, reference, travel, and entertainment sites.

100 Windows-Based Computer Applications (3) - RPT 2
Lecture 2 hours; Laboratory 3 hours.
Note: Course may be presented in short-term modules - CAOT 100D, CAOT 100E, or CAOT 100F. Computer Applications and Office Technologies majors must take all three modules.
Provides a hands-on introduction to software applications in a Windows environment for the computer novice. Includes hardware basics, operating systems, basic Windows operations, applications software, document creation with word processing (Microsoft Word), spreadsheet applications (Microsoft Excel), and basic Internet applications.

107 Microcomputer Office Applications: Web Design for the Office (3) - RPT 2
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: CAOT 97 or equivalent.
Develops skill in evaluating and constructing Web sites using Web page design software. Focuses on Web page design concepts. Provides instruction to incorporate text, graphics, animation, and multimedia into Web pages. Discusses publishing and managing a Web site.

108 Presentation Design for the Office (2) CSU - RPT 2
Lecture 1 hour; Laboratory 2 hours.
Recommended preparation: Ability to keyboard 30 words a minute and CAOT 39 or 84 .
Provides and overview of presentation design principles. Uses PowerPoint software to create presentations incorporating PowerPoint templates, fonts, graphics, transitions, sound, and animation. Students will learn to outline presentations, create dynamic slides, and develop slide shows based on business topics.

109 Web Multimedia for the Office (3) CSU - RPT 2
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: CAOT 97 or equivalent knowledge of the Internet.
Provides hands-on experiences using multimedia Web tools to create and maintain Web sites. Students will develop multipage Web sites for the high-tech office environment that incorporate links, graphics, animation, and multimedia features using Adobe Studio 8 (Dreamweaver, Flash, and Fireworks).

113 Introduction to Adobe Photoshop for the Office (3) - RPT 2
Lecture 1 hour; Laboratory 4 hours.
Recommended Preparation: Basic keyboarding skills and
computer knowledge.
Note: Uses Adobe Photoshop CS2.
Designed for office applications. Emphasizes the introductory concepts of Adobe Photoshop to edit images. Provides instruction in using digital equipment to create images for use with Adobe Photoshop. Uses various features of the program - selection tools, layers, channels, masks, painting tools, etc. - to complete specific projects. Covers the vocabulary specific to Adobe Photoshop.

114 Adobe Acrobat for the Office and the Web (2) - RPT 2
Lecture 1 hour; Laboratory 2 hours.
Recommended Preparation: Ability to keyboard and knowledge of Microsoft Word.
Note: Uses Adobe Acrobat 8 Professional.
Uses Adobe Acrobat to create, review, and modify PDFs (Portable Document Files) from Microsoft Office files, including Word and PowerPoint, as well as from Web pages. Emphasizes use of PDFs on the Web for various purposes, including creating multimedia presentations, adding interactive features, creating electronic forms, and adding electronic security to documents.

120 Adobe Illustrator for the Office and the Web (3)
Lecture 2 hours; Laboratory 3 hours.
Recommended Preparation: Ability to keyboard and a working knowledge of any other Adobe program or experience with Microsoft Office programs.
Uses Adobe Illustrator features to execute professional-looking
illustrations, images, and documents. Adobe Illustrator provides a wide variety of tools and techniques for adding visual effects to documents and allows users to integrate text and graphics. Covers toolbox functions, palettes, gradients, path operations, filters, and text elements.

130 Communication Skills in the Workplace (3)
Lecture 2 hours; Laboratory 3 hours.
Note: Course may be presented in short-term modules - CAOT 130A, CAOT 130B, or CAOT 130C. Computer Applications and Office Technologies majors must take all three modules.
Develops communication skills necessary for success in the workplace. Emphasis on the fundamentals of business English, the principles of business writing, and the techniques of office verbal communication. Importance is placed on those skills that promote success in the work environment.

185 Directed Study - Computer Applications \& Office Technologies (1) - RPT 2

285 Directed Study - Computer Applications \& Office Technologies (2)

385 Directed Study - Computer Applications \& Office Technologies (3)
Conference 1 hour per unit.
Prerequisite: CAOT 1 or 2.
Allows students to pursue Directed Study in CAOT on a contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - Computer
Applications \& Office Technologies
See Cooperative Work Experience Education.

## Computer Science And Information Technology

501 Introduction to Computers and Their Uses (3) UC:CSU (CAN CSCl 2)
Lecture 3 hours.
An introduction to the concepts, techniques, and terminology and uses of computers. Places the possibilities and problems of computer use in historical, economical, and social contexts. Shows how computers can assist in a wide range of personal, commercial, and organizational activities. Provides familiarization with typical computer applications, which include word processing, spreadsheets, databases, and presentation graphics. Also included are the methods, procedures, and usage of communications and the development and use of the Internet and World Wide Web.

507 Programming Logic (3) UC:CSU
Lecture 3 hours.
Prerequisite: Mathematics 115 or one year of high school algebra with a grade of "C" or better.
Recommended: Concurrent enrollment in Computer Science 506
This course introduces the concepts necessary to successfully design, test and document computer programs using top-down, structured programming techniques. Topics included are: data types, expressions, selection, repetition, arrays, data structures, control structures, algorithm and subalgorithm structures and parameter passing methods, and file and interactive input/output. This class is intended as a machine and language independent first course in computer science. It is required of all computer science majors and desirable for all students wishing to study programming. A high level language, such as CS506, should be taken concurrently.

508 Visual BASIC (3) UC:CSU (CAN CSCI 6 )
Lecture 2 hours; Laboratory 2 hours.
Prerequisites: Computer Science 507 or 575, and 530, with grades of " $C$ " or better.
Introduces the programming language Visual BASIC as a tool for developing user-friendly applications in the Windows environment. Topics include event-driven programming, basic control structures, data types, arrays, sequential and random file processing.

514 Network Operations and Systems (3) CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Prerequisites: Computer Science 572 and 587, which may be taken concurrently with Computer Science 514.
Introduces students to the skills and knowledge to properly support contemporary network operating systems. Topics include administering and securing resources and users.

516 Beginning Computer Architecture and Organization (3) UC:CSU Lecture 2 hours; Laboratory 2 hours.
Prerequisites: Computer Science 507 and one programming class from Computer Science 506 or 513, with a grade of "C" or better, or CoSci 575 Computer architecture. Topics include: information representation and storage organization in computer systems, computer hardware components, typical computer architectures, instruction formats, addressing modes, subprograms, parameter passing, stacks, and the instruction execution cycle, assembly language instruction formats, compiler translation to assembly language, optimizing compilers, disassemblers, loaders and simulators, system interrupts, memory allocation process with virtual memory, Boolean algebra and logic gates, combinational logic and sequential devices.

530 Personal Computer Application Software (3) UC:CSU Lecture 2 hours; Laboratory 2 hours.
A survey of business application software packages including operating systems, word processing, spreadsheets, PowerPoint presentations and the Internet. Examples include common business applications. Current software includes Windows, Word, Excel, and PowerPoint.

532 Advanced Data Structures and Introduction to Databases (3) CSU Lecture 3 hours.
Prerequisite: Computer Science 536 (Data Structures) and Computer Science 540 (Object Oriented Programming in C++). Computer Science 540 may be taken concurrently.
This course is a continuation of the study of data structures begun in CS 536. Selected advanced tree topics (e.g.: Huffman coding trees, heaps), graphs, and hashing will be covered, as well as data structures for storing and searching for data in secondary storage.

533 Databases with Access and SOL (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 530 with a grade of "C" or better. A complete presentation of database management using Access, including database design, queries, macros, toolbars, VBA and SQL. Also includes advanced work in Excel, uses of the Internet in these products, and OLE product integration.

534 Operating Systems (3) UC:CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 572 with a grade of "C" or better.
The primary issues surrounding the use and operation of the UNIX system are the focus of this course. An introduction to operating system concepts, structure, functions, performance and management is presented using the UNIX operating system. Review of computer hardware, software and operating system principals are also presented. The structure and command language interfaces are identified and discussed. Process control and, scheduling methods, and interprocess communication techniques are studied. Memory requirements and strategies are reviewed and allocation/scheduling algorithms are examined. System reliability, security, and performance analysis are examined. Aspects of UNIX networking are also discussed.

535 Network Configuration and Control Systems (3) CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 514.
Introduces students to the skills and knowledge to properly support contemporary network operating systems (NOS) server environments. Topics include managing web and terminal services; and user and resource management in an enterprise-wide directory.

536 Introduction to Data Structures (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 539
Introduction to data structures and their applications. The role of the abstract data type in object-oriented programming design. The definition, implementation and application of data structures: stacks, queues, linked lists, trees and graphs. Recursion. A comparative study of sorting and searching algorithms. Evaluation of algorithms using time complexity expressions

537 Routing Systems, Devices and Protocols (3) CSU - RPT 1 Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 578.
Introduces students to the skills and knowledge to implement and troubleshoot a basic routing system with multiple routers. Topics include the command language of the routing system and differences between routing and routed protocols. (Cisco $3 \& 4$ )

539 Programming in C (3) UC:CSU (CAN CSCI 16)
Lecture 3 hours; Laboratory 1 hour.
Prerequisites: Computer Science 506 or 508; AND Computer Science 507 (which may be taken concurrently with Computer Science 539).
This is a course in the programming language C. It covers data types, operators and expressions, control flow, functions and program structure, pointers, arrays, arrays of pointers, structures, I/O, binary files and an introduction to object-oriented C++. Examples illustrate programming techniques, algorithms, and the use of library routines.

540 Object Oriented Programming in C++ (3) UC:CSU (CAN CSCI 18) Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 539 with a grade of "C" or better.
Object-oriented programming methodology including encapsulation, data hiding, inheritance and polymorphism -- with emphasis on classes, constructors, destructors, friend functions, virtual functions, general and operator function overloading -- are studied and implemented in programming assignments and a project due at end of the semester.

541 Advanced Visual Basic and Database Programming (3) CSU Lecture 2 hours; Laboratory 2 hours.
Prerequisites: Computer Science 508 and Computer Science 533.
Advanced Visual Basic programming on personal computers for database applications in a Windows environment using Visual Basic .NET as a front end for database access. Includes building complete applications. Also covers ADO and SQL.

546 Advanced Computer Architecture and Organization (3) UC:CSU Lecture 2 hours; Laboratory 2 hours.
Prerequisites: Computer Science 516 and 536, both with a grade of " $C$ " or better.
Introduction to the structure, nature and characteristics of current computer system architecture and operations. Several recent and current computer architectures are compared and evaluated. Computer systems consist of an interrelated set of high-level components: the control unit processor, memory and I/O components. The interconnections between these components are discussed, e.g., various interconnection bus structures. The hierarchy of memory systems, e.g., cache memory, internal memory, and external memory (storage) is discussed. The various types of I/O are analyzed. The interrelationship between operating systems and computer hardware is explained and various implementations are reviewed. A detailed analysis of the central processing unit is undertaken. Computer arithmetic is reviewed. The characteristics, functions and implementation impacts of the instruction set design on the hardware is evaluated, e.g., types and number of operations, types and number of addressing modes and the design of the instruction formats are analyzed. The processor structure and functions are reviewed, e.g., various instruction cycles, data flows and instruction pipeline architectures are discussed. CICS and RISC computer systems are compared and analyzed. Instruction-level parallelism and the relationship to superscalar processors are detailed. The internals of the control unit is explained, e.g., the internal registers, micro-operations and the instruction cycle is discussed in detail. The role of microprogrammed control in computer system design is explained. The design and operation of micro-intructions are analyzed. Since many desktop systems are currently available that support multiple processors, the architecture and organization of multiple processor systems are discussed. Finally the architecture of array processors and their relationship to supercomputers, mainframe computer, servers and desktop computers is discussed

547 Introduction to Digital Imaging Using Photoshop (3) CSU RPT 3
Lecture 2 hours; Laboratory 2 hours.
Offered as CoSci 99GG in Fall 2005.
Introduction to computer graphics and imaging concepts for web page development. Laboratory experience includes selecting, implementing, altering, and manipulating image files using current graphics applications. Topics include graphics file types, color generation schemes, texturing, spatial issues, touch-up, print and web-based graphics imaging techniques. Desirable for students wishing to study graphics applications for use in web page design and related graphics settings.

548 Web Development Using Flash and ActionScript (3) - RPT 3 Lecture 2 hours; Laboratory 2 hours.
Use Macromedia Flash and ActionScript to develop and program interactive websites that include animation, graphics, video, and sound. Topics include Flash basics, creating and controlling animation, and programming using ActionScript, events and event handlers. Experience with Windows is required.

550 Website Development and Programming Using Dreamweaver and JavaScript (3) - RPT 3
Lecture 2 hours; Laboratory 2 hours.
Use Macromedia Dreamweaver to develop, program and maintain websites. Topics include Dreamweaver basics, Tables, CSS, Rollovers, Forms, publishing websites and programming websites using JavaScript and XHTML. Experience with Windows is required.

## 552 Programming in Java (3) UC:CSU

Lecture 2 hours; Laboratory 2 hours.
Prerequisites: Computer Science 506 and 507 with a grade of "C" or better.
This course is an introduction to the Java programming language and principles of object-oriented design and programming using Java. Topics include Java language fundamentals, Applet programming for Web pages, building graphical user interfaces with multimedia components in Applets, and developing standalone application programs. Includes an introduction to C\#.

553 Introduction to Web Page Development (3) CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Prerequisites: Computer Science 530 with a grade of " $C$ " or better: An introductory course in web document design and development. Study of client-side programming. Study of Web terminology, nomenclature and use. Contemporary web page design strategies and techniques. Current and emerging markup and scripting languages and their use. Enhancing web document content and interactivity using graphics, audio, MIDI and video. Web document server interaction.

## 554 Server-Side Programming for the World Wide Web (3)

 CSU - RPT 1Lecture 2 hours; Laboratory 2 hours
Prerequisites: Computer Science 553 with grades of " $C$ " or better. An advanced web programming course. The student will learn the PHP scripting language, and how to write PHP scripts to access web-based databases. Topics include basic PHP command and control structures, and the various aspects of the PostgreSQL RDBMS. Security, designs, and implementation issues are also discussed.

555 Website Development Using Javascript and AJAX
Lecture 2 hours; Laboratory 2 hours.
May be offered as CAOT 99.
Prerequisites: Computer Science 553 with grades of " $C$ " or better.
Use JavaScript and AJAX to develop and program interactive websites. Topics include JavaScript basics, variables, arrays, control structures (selection and repetition), functions, Document Object Model (DOM), events, forms; AJAX basics, using text, XML, Web forms, and advanced JavaScript and advanced AJAX.

560 Business Systems Design Using Oracle Developer (3) Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 533.
Examines the process of analysis, design, and implementation of computer database systems as applied to business. Using Oracle, project work will be assigned in table design, data retrieval using SQL and PL/SQL, forms and report development.

572 Introduction to Personal Computer Hardware and Operating Systems (3) CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Introduction to the hardware found in modern Personal Computers (PCs), the evolution of various Operating Systems, and how hardware and software work together in a cooperative manner.

575 Programming Fundamentals for Computer Science (3) CSU Lecture 3 hours; Laboratory 1 hour. Prerequisite: Mathematics 115 or one year of high school algebra with a grade of " $C$ " or better.
Programming concepts and practical laboratory experience to successfully design, implement, test and debug computer programs using top-down, structured programming techniques. Topics include: program planning techniques, expressions, selection, repetition, arrays, data structures, functions, parameter passing, and file and interactive input/output. Intended as a first course in computer science. Combines the contents of CS 507 and CS 506 into one course. Required for computer science majors. Desirable for students wishing to study programming.

578 Routing Systems Design and Programming (3) CSU - RPT 1 Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 587.
Introduces students to the skills and knowledge to configure a contemporary routing system. Topics include routing fundamentals, network management \& troubleshooting, and routing \& routed protocols. (Cisco 2)

581 Personal Computer Upgrade and Repair (3) CSU - RPT 1 Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 572 with a grade of " $C$ " or better.
This is a second of 2 classes to prepare students for $\mathrm{A}+$ certification. The objective of this course is to teach the maintenance, repair and upgrading of personal computer systems. Topics will include software and hardware installation, maintenance and repair of disks, printers, memory expanders, and adapters. Course includes an introduction to small office/home office (SOHO) networks; hands-on installation of wireless (WIFI) and CAT-5 wired networks, installation and fine-tuning third-party security software to protect against viruses and spyware.

587 Introduction to Computer Networks (3) CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 572, which may be taken concurrently with Computer Science 587.
Network terminology; topology; introduction to the OSI model; protocols, standards and concepts are discussed. Local and wide-area networks are analyzed. Lab activities are concerned with an examination of existing LAN/WAN hardware and software, and research projects on relevant network topics. (Cisco 1)

588 Computer Projects (2) CSU - RPT 1
Lecture 1 hour; Laboratory 3 hours.
Prerequisites: Computer Science 577 and 578 with a grade of " $C$ " or better. Requires the student, after consultation with the instructor, to design, build, evaluate and document a project involving digital computers. Professional approaches toward funding a real project as either an employee or contractor are discussed along with cost estimating, scheduling and documenting.

185 Directed Study - Computer Science - Information Technology (1) †UC:CSU - RPT 2

285 Directed Study - Computer Science - Information Technology (2) $\dagger \mathrm{UC}: C S U$

385 Directed Study - Computer Science - Information Technology (3) $\dagger \mathrm{UC}: \mathrm{CSU}$

Conference 1 hour per unit.
Allows students to pursue Directed Study in Computer Science on a contract basis under the direction of a supervising instructor.

911-941
Cooperative Work Experience Education - Computer Science Information Technology
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC Campus. This usually occurs AFTER transfer and may include recommendations from faculty.

# Cooperative Work Experience Education 

The following courses provide Cooperative Work Experience Education credit. See Cooperative Work Experience Education in the Educational Programs section of this catalog.

Cooperative Work Experience Education Occupational (CSU)

Cooperative Work Experience Education is offered in the subjects listed below, repeatable three semesters.

Accounting
Addiction Studies
Administration of Justice
Agriculture
American Sign Language
Anthropology
Architecture
Art
Automotive Service Technology
Biology
Business
Chemistry
Computer Applications and
Office Technology
Computer Science
Economics
Education

Electronics
Engineering, General
English
Geography
Health
Industrial Technology General
Journalism
Music
Nursing
Photography
Physical Education
Physics
Political Science
Psychology
Sociology
Speech Communication
Theater

Prerequisite: Employment in a field related to the student's major as verified by the signature of the Cooperative Work Experience Education Advisor. Limits to transfer credit: See Cooperative Work Experience Education Credit Guide.
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's education goals.

## Cooperative Work Experience Education - General

## 195 Work Experience - General I (1) CSU - RPT 1

295 Work Experience - General I (2) CSU - RPT 1
395 Work Experience - General I (3) CSU - RPT 1
Supervised training is provided in the area of general employment practices with emphasis on attitude, ethics, and integrity. On-the-job training need not be in the college major but must be educational.

## Criminal Justice

See Administration of Justice

## Dance

812 Current Dance Events (1) CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Concurrent enrollment in Humanities 89 recommended.
Enriches the student's dance, movement and related art experiences through opportunities to observe and participate in a wide variety of dance experiences. Consists of demonstrations by faculty; students, and guest artists. Offers previews of current concerts, symposia, and
workshops with opportunities to attend and critically analyze these events. Emphasis will include an increased awareness and a greater understanding of the self and individual's response to his environment.

185 Directed Study - Dance (1) †UC:CSU - RPT 2
285 Directed Study - Dance (2) †UC:CSU
Allows students to pursue Directed Study in Dance under the direction of a supervising instructor.

385 Directed Study - Dance (3) tUC:CSU Conference 1 hour per unit.
*UC Credit Limit: Any or all courses, maximum 4 units.
${ }^{* *}$ UC Credit Limit: Any or all courses, maximum 12 units.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Dance Specialties

401 International Folk Dance (1) **UC:CSU - RPT 3
Formerly Dance Activities 401.
Laboratory 2 hours.
An opportunity for students to learn dances of various countries, and become familiar with customs, costumes, music of those countries.

431 Modern Dance (1) **UC:CSU - RPT 3
Formerly Dance Activities 431.
Laboratory 2 hours.
A method of movement that gives the student an opportunity to train the body and mind for communication. Opportunity to create and project own feelings and ideas through this art of dance.

## 434 Ballet (1) **UC:CSU - RPT 3

Formerly Dance Activities 434.
Laboratory 2 hours.
Opportunity to study classical ballet technique with emphasis on basic movements and combination, vocabulary based on French terminology, classical music, and to explore all the characteristics of a classical ballet historically. Develop an awareness and an appreciation of dance as an art form. Course has live as well as recorded accompaniment, and may be taken four times.

437 Jazz Dance (1) **UC:CSU - RPT 3
Formerly Dance Activities 437.
Laboratory 2 hours.
Designed to train the novice and intermediate dancer in jazz techniques of several styles as well as awareness and appreciation of the biomechanical principles of movement in this time-space art. Opportunity for creativity in working with the elements of dance: rhythm, motivation, dynamics, design.

## 440 Social Dance (1) *UC:CSU - RPT 3

Same as Physical Education 440; Formerly Dance Activities 440
Laboratory 2 hours.
Popular social dancing including the Waltz, Foxtrot, East Coast Swing, West Coast Swing, Merengue, Tango, Cha Cha, Rhumba, Salsa, a review of the 20's dances, and other ballroom and social styles as time permits.

441 Latin Social and Salsa Dance (1) UC:CSU
Laboratory 2 hours.
Early Latin social dances which develop into contemporary popular social and ballroom styles in America.

## 446 Tap Dance (1) *UC:CSU - RPT 3

Formerly Dance Activities 446.
Laboratory 2 hours.
Affords the student opportunity to study and perform a style of dance in which the sound of the footwork is percussive, rhythmic and enjoyable.

## Dance Studies

## 452 Introduction to Choreography (1)

Laboratory 2 hours.
Introduce and/or review the basic princiiples of dance composition and choreography; The course will include theory and practice using improvisation, critical analysis, and implementation of design, rhythm, dynamics and motivation in student projects.

801 Modern Dance I (3) UC:CSU - RPT 2
Lecture 2 hours; Laboratory 4 hours.
The course is designed to afford the student the opportunity to participate in a learning environment that is well planned to train the body in dance skills by engaging in stretching, strengthening, and endurance-developing techniques with an understanding of the biomechanical principles of movement. Improvisation and elementary composition will provide opportunity to create using this art form. Motivations for improvisation will encompass auditory, verbal, visual, tactile, kinesthetic, and other life forms.

802 Modern Dance II (3) **UC:CSU - RPT 1
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Physical Education 431 or Dance 431 and Dance 801. Exploring the language of dance through the study of the basic sources of movement and the relationship to the elements of rhythm, dynamics, design. The course is designed to extend skill development and increase opportunities for creativity. Historical perspectives are explored.

803 Modern Dance III (3) **UC:CSU - RPT 2
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Dance 802.
The course is designed to afford the student the opportunity to participate in a learning environment that is well planned to train the body with intermediate and advanced techniques. Improvisation and opportunity for composition will be accompanied by historical information.

804 Modern Dance IV (3) **UC:CSU - RPT 3
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Dance 803.
Learning to apply the principles of physics for increased anatomically correct movement that also increases the esthetic language of dance. Historical perspectives involving critiques.

814 Dance Production (2) **UC:CSU - RPT 3
Lecture 1 hour; Laboratory 2 hours.
Emphasis on the decision-making process involved in and producing performances for stage, film and site-specific areas. Involves rehearsals for dancers and production duties for non-dancers.

818 Fundamental Rhythms (2) UC:CSU - RPT 1
Lecture 1 hour; Laboratory 2 hours.
Opportunity to participate in five different styles of dance: Round and Square, Folk Dance, Social Dance, Modern Dance, Ballet.

819 Choreography (4) UC:CSU - RPT 2
Lecture 2 hours; Laboratory 4 hours.
Prerequisite: Modern Dance, Ballet, or Jazz experience.
Opportunity to express oneself through the art of dance. Styles and choreographic principles and forms will be explored. The essence of choreography will begin with improvisation on design, dynamics, rhythm and motivation.

820 Dance Production II (4) CSU - RPT 1
Lecture 2 hours; Laboratory 4 hours.
Provides laboratory experience in increasing the skills involved in dance production (choreography, set design, lighting, costume design, make-up, etc.) Affords opportunity to perform with, and is also a workshop for the Pierce College Dance Theatre. This is a continuation of Dance 814.

821 Dance Production III (4) CSU - RPT 1
Lecture 2 hours; Laboratory 4 hours.
Opportunity for the student to gain increased experience in the art of dance production. The concepts and types of theater production and performances including the choreography, set design, lighting, multimedia dimensions, areas, costumes, makeup, other technical requirements.

860 Dance and Creative Movement for Educators (3) CSU Lecture 2 hours; Laboratory 2 hours
Course is designed for educators and parents interested in utilizing creative movement and dance as a tool for teaching. Learn to develop your students' artistic perception, create movement experiences that enhance early childhood and academic lessons, and facilitate kinesthetic learning, awareness, and expression in a multi-cultural environment.

## Dance Techniques

## Desktop Publishing

 See course listings under Computer Applications and Office Technology
## Drafting - Mechanical

See course listing under Industrial Technology -Drafting- Mechanical

## Economics

1 Principles of Economics I (3) UC:CSU (CAN ECON 4)
Lecture 3 hours.
May be offered as an honors section.
Principles of economic analysis and decision-making from the viewpoint of the individual consumer, worker, and firm. Emphasis is on the price system allocation of resources and income, supply and demand analysis, the structure of industry, and the application of economic principles to current policies and social problems. Required subject coverage highlights the global economy and includes fundamentals of markets, comparative advantage and international trade, elasticity of demand and supply, the effects of taxes and price controls on market outcomes, factor markets, production costs, market structures, game theory, market failure, and public goods.

2 Principles of Economics II (3) UC:CSU (CAN ECON 2)
Lecture 3 hours.
May be offered as an honors section.
Principles of economics focusing on aggregate economic analysis. Topics include the market system of resource allocation, measurement of GDP, the problems of unemployment and inflation, stabilization policy, and macroeconomic controversies. Required subject coverage emphasizes the global economy and includes fundamentals of markets, national income accounting and macroequilibrium, economic growth and business cycles, fiscal and monetary policies, money and financial institutions, international trade and finance.

10 Economic History of the United States (3) UC:CSU
Lecture 3 hours.
Same as History 15. Credit not given for both courses.
Emphasizes the causes of growth in the American economy and how the economy today continues to be influenced by events from the past. Considers the causes of the American Revolution: how changes in institutions and British attitudes contributed to the revolution. Analyzes how Southern plantation agriculture, slavery, and westward expansion culminate in the Civil War. Traces the increasing role of government in the economy starting with the Industrial Revolution, the price controls of World War I, the Great Depression, and the New Deal. Speculates on the future of the U.S. economy.

16 Economics of Sports (3) CSU
Lecture 3 hours.
Using sports as the focal point, this course covers market power, labor theory, public finance, and the economics of discrimination. Specific issues addressed are antitrust protection of Major League Baseball, the competition among cities for professional sports franchises, racial discrimination in professional sports, and Title IX.

30 Comparative Economic Systems (3) UC:CSU
Lecture 3 hours.
The course first presents a survey of the development of economic systems, in particular discussing slave economies, mercantilism, and feudalism. The course presents the classical model [the capitalist model] as a reaction against feudalism and mercantilism. The course then looks at adaptations of the capitalist model, as found in Asian economies [in particular, Japan, South Korea, Hong Kong, Taiwan, and Singapore] and the European Economies [England, Germany, France, Sweden, and the European Union] - the "market socialist" countries. The final topic considers the transition economy - the Russian, Chinese, and developing economies. In all cases, the crucial roles of history and institutional development are recognized.

## 60 Economics and the Environment (3) CSU

Lecture 3 hours.
*UC transferability pending approval.
This course provides an overview of natural and environmental resources The first part introduces common themes: the optimist and pessimist models, property rights, externalities, public goods, sustainability, population growth, and valuation issues. The natural resource section includes renewable [fisheries and forestries], nonrenewable [oil, coal], and nonexhaustible [solar, wind] resources. The third section discusses pollution: local, regional, and global, point and nonpoint, water and air pollution, hazardous waste, and solutions to pollution problems [standards, market-based mechanisms, recycling]. The last section considers the case of less developed countries: the role of agriculture and population, rainforests, and a reconsideration of sustainability issues.

## 185 Directed Study - Economics (1) $\dagger$ UC:CSU - RPT 2

285 Directed Study - Economics (2) †UC:CSU
385 Directed Study - Economics (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Economics on ~ contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - Economics
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC Campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Education

## 6 Methods and Materials of Tutoring (1)

Lecture . 33 hours; Laboratory 1.33 hours
A course offering instruction in tutoring techniques, group dynamics, interpersonal skills, record-keeping, organizational skills and study skills. Students will work 2-4 hours weekly from lab to practicum, tutoring those students who have enrolled in Supervised Learning Assistance Tutoring 001 and/or other college approved tutoring programs.

200 Introduction to Special Education (3) CSU
Lecture 3 hours.
*UC transferability pending approval.
This introductory course focuses on special education as a field and teaching as a profession. It begins with the history of special education and covers legislation and laws supporting the educational rights of individuals with disabilities and their parents and care providers.

203 Education In American Society (3) UC:CSU
Lecture 3 hours.
Formerly Education 99B.
This course is designed to provide future teachers with the fundamental knowledge base essential for understanding of the American educational enterprise, especially problems in urban multicultural schools. Concepts and methods from the fields of sociology, philosophy, and the politics of education are used to analyze the current conditions of American schools and to evaluate selected proposals/models for reform. A minimum of 20 hours of observation and participation in a multicultural setting is required.

## 911-941

Cooperative Work Experience Education - Education
See Cooperative Work Experience Education

## Electronics

4A Fundamentals of Electronics IA (3) CSU Lecture 3 hours.
The first class for electronics majors. Atomic theory, voltage, resistance, current, energy and power, Ohm's law, series-parallel circuits, voltage and current dividers. Network theorems and applications of Kirchhoff's laws. Voltage and current sources, conductors, resistors, batteries, magnetism, D.C. characteristics of capacitors and inductors. Computer aided schematic capture and circuit analysis.

4B Fundamentals of Electronics IB (1) CSU
Laboratory 3 hours.
Construction of basic DC circuits for the study of Ohm's law, series and parallel, network theorems including Kirchhoffs Law, superposition, mesh, Thevenin's and Norton's. Wiring practice from schematics. Use of laboratory instruments including analog and digital multimeters and power supplies. Computer aided schematic entry and circuit analysis.

6A Fundamentals of Electronics IIA (3) CSU
Lecture 3 hours.
Recommended Preparation: Electronics $4 A$ and $4 B$.
A detailed study of alternating current theory and applications. AC waveforms, reactance, impedance, resonance, transformers, quality factor, magnetism, coupling, and filters are studied. Emphasizes the solution of alternating current circuit problems.

6B Fundamentals of Electronics IIB (1) CSU
Laboratory 3 hours.
Recommended Preparation: Electronics $4 A$ and $4 B$.
Practical laboratory applications of the theories presented in Electronics 6A. Experiments are performed to study alternating current parameters and components including capacitance, inductance, reactance, resonance, filters and transformers. Use of oscilloscopes, function generators, and other lab instruments. Computer aided circuit analysis.

8A Electron Devices A (3) CSU
Lecture 3 hours.
Recommended Preparation: Electronics $4 A$ and $4 B, 6 A$ and $6 B$. Recommended: Concurrent enrollment in Electronics $8 B$.
Principles of semiconductors including diodes, bipolar and field effect transistors, SCR's, tunnel diodes, light emitting diodes, photo-transistors, DIACs, TRIACs, Zener diodes, UJT's. Characteristic curves for semiconductor devices. Biasing and load lines. Common emitter, collector, and base transistor configurations. Sample applications of semiconductor devices. Computer aided circuit analysis.

8B Electron Devices B (1) CSU
Laboratory 3 hours.
Recommended Preparation: Electronics $4 A$ and $4 B, 6 A$ and $6 B$. Recommended: Concurrent enrollment in Electronics $8 A$.
Provides laboratory experience in the characteristics and applications of solid state electron devices and the use of test equipment including multimeter, oscilloscope, function generator, and DC supply. Lab work focused on constructing, testing, analyzing, and troubleshooting a variety of circuits using semiconductor devices, including diodes and transitors. Supplemented with computer circuit simulation.

26 Linear Circuits (3) CSU
Lecture 3 hours.
Recommended Preparation: Electronics $8 A$ and $8 B$.
Power supplies, AC and DC amplifiers, push-pull amplifiers, complementary symmetry, and phase splitters. Analysis of distortion in amplifiers. Class A, B, and C amplifiers and oscillators. Multistage and large signal amplifiers. Feedback, input and output impedance, and frequency response. Computer Circuit Analysis

28 Electronic and Electro-Mechanical Drafting I (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Introduction to Computer Aided Drafting as applied to Electronics. Using CAD programs to draw schematic symbols and diagrams, flow charts , block diagrams, highway and logic diagrams. Printed circuit board design and layout. Introduction to assembly and construction drawings. Schematic capture using PSPICE. Introduction to printed circuit board design computer programs.

44 Communications Electronics (3) CSU
Lecture 3 hours.
Recommended Preparation: Electronics $8 A$ and $8 B, 72 A$ and $72 B$. Recommended: Concurrent enrollment in Electronics 45.
Concepts of modulating and demodulating a RF carrier including AM, SSB, FM, and PM. Study of RF transmitters and receivers and their subcircuits, including:RF filters, amplifiers, oscillators, modulators, mixers, detectors and discriminators. Frequency multipliers, phase locked loop detectors and synthesizers. TV systems. Digital Communications: FSK and PSK. Signals in the frequency and time domains.

45 Communications Electronics Laboratory (1) CSU
Laboratory 3 hours.
Recommended Preparation: Electronics $8 A$ and $8 B, 72 A$ and $72 B$. Recommended: Concurrent enrollment in Electronics 44.
Laboratory experience for Electronics 44. Communications circuits including oscillators, modulators, filters, IF amplifiers, TV sweep generator, and modem are built and tested. Communications test equipment usage, including signal generator, scope, FFT spectrum analyzer.

48A Integrated Circuits (3) CSU
Lecture 3 hours.
Recommended Preparation: Electronics 26 and 63.
Theory and applications of linear and linear/digital integrated circuits with emphasis on operational amplifiers. DC parameters, input/output impedance, input offset/bias current, CMRR, open and closed loop gain. Frequency response, voltage regulators, audio frequency amplifiers, oscillators, filters and mixers. Differential amplifiers and phase lock loops. Applications and CAD circuit analysis.

## 48B Integrated Circuits Laboratory (1) CSU

Laboratory 3 hours.
Recommended Preparation: Electronics 26 and 63.
Laboratory applications of linear and linear/digital integrated circuits with emphasis on operational amplifiers. DC parameters, input/output impedance, input offset/bias current, CMRR, open and closed loop gain. Frequency response, voltage regulators, audio frequency amplifiers, oscillators, filters and mixers. Differential amplifiers and phase lock loops. Applications and CAD circuit analysis.

60 Microwave Fundamentals (3) CSU
Lecture 3 hours.
Recommended Preparation: Electronics $8 A$ and $8 B$.
Microwave signals and their applications. Power density and RF safety. Electromagnetic waves and propagation. Antennas: Dipole, vertical. Transmission lines: Characteristics, principles and analysis. Use of Smith Chart. VSWR, return loss, and reflection coefficient. Stubs and tuners. Waveguides, modes. Microwave signal generation and amplifiers. Microwave components operation.

61 Microwave Fundamentals Laboratory (1) CSU
Laboratory 3 hours.
Recommended Preparation: Electronics $8 A$ and $8 B$.
Practical laboratory experience performing microwave measurements using VSWR and power meters, spectrum analyzers, swept frequency systems and plotters. VSWR, reflection coefficient, load impedance, power, frequency, and attenuation are determined through lab experimentation. Use of time domain reflectometry.

63 Circuit Analysis Laboratory (1) CSU
Laboratory 3 hours.
Recommended Preparation: Electronics $8 A$ and $8 B$.
Provides laboratory experience with linear and switching power supplies, AC and DC and multistage amplifiers, push-pull and complementary symmetry. Class A, B, and C amplifiers and oscillators are constructed and tested. Construction techniques and troubleshooting. Computer aided circuit analysis.

## 72A Digital Circuits IA (3) CSU

Lecture 3 hours.
Recommended Preparation: Electronics $6 A$ and $6 B$.
Recommended: Concurrent enrollment in Electronics $8 A$.
Digital number systems, Boolean algebra, Karnaugh maps. Combinational systems including gates, adders, encoders, decoders, code converters, displays and drivers, multiplexers. Sequential circuits including flip flops, monostable multivibrators, counters, registers, and timers. Synchronous sequential design, transition tables and timing diagrams. Memory systems. Computer aided circuit analysis.

## 72B Digital Circuits Laboratory IB (1) CSU

Laboratory 3 hours.
Recommended: Concurrent enrollment in Electronics 72 A .
Provides practice in breadboarding and troubleshooting digital circuits using integrated circuits. The circuits that are constructed and tested include logic gates, flip-flops, memories, counters, registers, synchronous sequential designs, and digital displays. Emphasis is placed on using manufacturers data sheets.

## 74A Microprocessors (3) CSU

Lecture 3 hours.
Recommended Preparation: Electronics $72 A$ and $72 B$.
A comprehensive study of a representative microprocessor, with an emphasis on the internal architecture, instruction set, timing and support chips. The fundamentals of micro and macro programming, input and output control, interfacing, and machine language programming techniques. Many programming examples and control applications. A/D and D/A conversion

## 74B Microprocessors Laboratory (1) CSU

Laboratory 3 hours.
Recommended Preparation: Electronics $72 A$ and $72 B$.
Programming a representative microprocessor, with an emphasis on the internal architecture, instruction set, timing and support chips. The fundamentals of macro programming, input and output control, interfacing, and machine language programming techniques. Many programming examples including traffic light control

81 Projects Laboratory (1) RPT 3
Laboratory 3 hours.
Requires the student, after consultation with the instructor, to assemble, test, and document the characteristics of an electronic system while following a specified time schedule. A report covering the theory of operation and test procedures is required. The student will provide all materials and do all research without direct supervision. Time and resource management is emphasized.

185 Directed Study - Electronics (1) RPT 2
285 Directed Study - Electronics (2)
385 Directed Study - Electronics (3)
Conference 1 hour per unit.
Allows students to pursue Directed Study in Electronics on a contract basis under the direction of a supervising instructor.

Cooperative Work Experience Education - Electronics
See Cooperative Work Experience Education

## Engineering Mechanical

110 Engineering Computer-Assisted Drafting I (3) UC:CSU
Lecture 1 hour; Laboratory 5 hours.
Same as I. T. 110. Credit not given for both courses.
A foundational course in the theory and practice of engineering computer-assisted drafting. Topics include technical sketching, hardware devices, software utilization, orthographic projection, single and multiple views, and basic dimensioning standards.

115 Engineering Computer-Assisted Drafting II (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as I. T. 115. Credit not given for both courses.
An elementary course in the theory and practice of engineering computerassisted drafting. Units include pictorial sketching, computer equipment, software manipulation, isometric projection, oblique projection, and pictorial dimensioning conventions.

205 Engineering Descriptive Geometry (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as I. T. 205. Credit not given for both courses.
Provides training in the analysis and solution of orthographic projection problems through application of the fundamental principles of descriptive geometry. Emphasis is placed on exposure to and interpretation of points, lines, and planes, in primary, secondary, and successive auxiliary views. Theory and practice are included that involve visualization and graphic representation of intersections, angles, parallelism, perpendicularity, and revolutions.

210 Engineering Computer-Assisted Drafting III (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as I. T. 210. Credit not given for both courses.
An introductory course in the principles and practices of engineering computer-assisted drafting. Areas covered include basic sectional views, cutting planes, section lining, basic auxiliary views, angle determination, and transfer distances.

215 Engineering Computer-Assisted Drafting IV (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as I. T. 215. Credit not given for both courses.
A basic course in the concepts and skills of engineering computer-assisted drafting. Units include detail drawings, dimensional tolerancing, feature specification, assembly drawings, parts list generation, and screw thread call-outs.

## 310 Engineering Computer-Assisted Drafting V (3) CSU

Lecture 1 hour; Laboratory 5 hours.
Same as I.T. 310. Credit not given for both courses
An intermediate level course in concepts and skills of mechanical computer-assisted drafting. Topics covered include advanced details with multiple sectional views and advanced details with primary and secondary auxiliary views.

## 315 Engineering Computer-Assisted Drafting VI (3) CSU

Lecture 1 hour; Laboratory 5 hours.
Same as I.T. 315. Credit not given for both course.
A mid-level course in the concepts and skills of mechanical computerassisted drafting. Units include surface texture specification, detail assemblies with welding symbology, sheet metal details with flat patterns, and geometric dimensioning and tolerancing.

410 Engineering Computer-Assisted Drafting VII (3) CSU Lecture 1 hour; Laboratory 5 hours.
Same as I.T. 410 Credit not given for both courses.
An advanced course in the theory and practice of computer-aided drafting. Topics included will be advanced multiview and pictorial assemblies and complete sets of working drawings that utilize ANSI precision fits in their manufacture.

415 Engineering Computer-Assisted Drafting VIII (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as I.T. 415. Credit not given for both courses.
An advanced course in the theory and practice of computer-aided drafting. Areas of focus will include the construction, editing, and display of three-dimensional wire-frame, surface, and solid models of rectangular and cylindrical parts.

## English

The results of the English Placement Process must be on file at the Assessment Center in order to enroll in English 21, 28 or 101 and above, English 82, or 84-87.

All students planning to enroll in an English course for the first time are expected to complete the English Placement Process at the Pierce College Assessment Center. Contact the Assessment Center at (818) 719-6499 for an appointment and sample test information. Placement results or prerequisite courses taken at other colleges may be presented to the Assessment Center to be substituted for the Pierce English Placement test.
Placement recommendations made through the English Placement Process are intended to assist students enrolling in classes where they are most likely to succeed. Upon completing the process, students are informed of their placement and given their authorization to enroll.

## English Writing Laboratory

Open to any regularly enrolled student in Pierce College.
20 College Reading Skills (6) (NDA)
Lecture 6 hours.
Offered in 3-unit modules.
Note: This is not a course for non-native speakers of English.
Provides students with entry level opportunities to improve reading comprehension, critical thinking, vocabulary, and related skills necessary for success in college classes.

## 21 English Fundamentals (3) (NDA)

Lecture 3 hours.
Prerequisite: English 20 or English 87 with a grade of " $C$ " or better, or appropriate skill level demonstrated through the English placement process.
Emphasizes improvement of writing, particularly sentences and paragraphs, and supplements and reinforces basic communication skills including punctuation, spelling and sentence structure. Develops ability to read analytically and think logically.

28 Intermediate Reading and Composition (3)
Satisfies reading and composition competency requirements for $A A$ degree.
Lecture 3 hours.
Prerequisite: English 21 with a grade of "C" or better; or appropriate skill level demonstrated through the English placement process.
Introduces the student to the elements of composition and critical reading. Designed to assist the student to make a successful transition to English 101. Emphasizes grammar, sentence structure, paragraph and essay writing.

## 32 College Literary Magazine Editing (2) RPT 3

Lecture 2 hours.
This course studies the ways to process poetry and prose submitted to the editor of the literary magazine (Direction), including critical evaluation of short stories and poetry, rewriting, editing, and copy reading. In addition, it includes printshop experience doing makeup and proof-reading, study and evaluation of other college literary magazines, and training in magazine promotion and sales.

60 Publications Laboratory (1) (NDA)
Laboratory 2 hours.
An independent workshop for the writing and/or editing of poetry, short fiction, drama and essays intended for publication in the college literary magazine.

79 Beginning College English as a Second Language (6) (NDA) Lecture 6 hours.
An integrated skills course intended for students whose native language is not English. Introduces basic English grammar, basic sentence structure, vocabulary, beginning reading for comprehension, guided writing, and oral communication.

82 Introduction to College English as a Second Language (5) (NDA) Lecture 5 hours.
Prerequisite: English 79 with a grade of " $C$ " or better, or appropriate skill level demonstrated through the ESL placement process.
An integrated skills course intended for students whose native language is not English. Introduces basic English grammar, sentence structure, vocabulary, beginning reading for comprehension, guided writing, and oral communication. Builds on the skills acquired in ESL 79.

84 College English as a Second Language I (5) (NDA)
Lecture 5 hours.
Prerequisite: Appropriate skill level demonstrated through the ESL placement process, or English 82 with a grade of " $C$ " or better.
Specifically for students whose first language is not English. Introduces students to basic sentence patterns, simple grammar and vocabulary, reading comprehension, guided writing, and oral communication.

85 College English as a Second Language II (5) CSU Lecture 5 hours.
Prerequisite: Appropriate skill level demonstrated through the ESL placement process, or English 84 with a grade of " $C$ " or better.
Specifically for students whose first language is not English. Continues to work on the fundamentals of English as a second language. Places emphasis on writing, syntax and reading.

86 College English as a Second Language III (5) UC:CSU Lecture 5 bours.
Prerequisite: Appropriate skill level demonstrated through the ESL placement process, or English 85 with a grade of " $C$ " or better.
Specifically for students whose first language is not English. Continues to work on the fundamentals of English as a second language. Places emphasis on writing, syntax and reading.

87 Advanced ESL: Reading and Vocabulary (3) CSU
Lecture 3 hours.
Prerequisite: Appropriate skill level demonstrated through the ESL placement process, or English 86 with grade of "C" or better.
A reading and writing skills course designed for advanced ESL students. Includes reading and writing for comprehension, and exercises in critical reading and writing. Prerequisite is ESL 86 or appropriate skill level demonstrated through the placement process.

101 College Reading and Composition I (3) UC:CSU (CAN ENGL 2) Lecture 3 hours.
Prerequisite: English 28 with a "C" or better, or appropriate skill level demonstrated through the English placement process.
Develops proficiency in reading and writing through application of the principles of rhetoric and the techniques of critical thinking. Prerequisite is an understanding of the elements of grammar, punctuation, and sentence structure. Formal research paper required. Required for English majors.

102 College Reading and Composition II (3) UC:CSU (CAN ENGL 4) (ENGLISH 101+102=CAN ENGL SEO A)
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better.
One of two critical thinking courses offered by the English department. Develops critical thinking and writing skills beyond the level achieved in English 101 and emphasizes logical reasoning, analysis, and strategies of argumentation using expository prose as subject matter. Designed to improve critical thinking in written arguments by applying established modes of reasoning, analyzing rhetorical strategies, evaluating logical fallacies, and detecting propaganda techniques.

103 Composition and Critical Thinking (3) UC:CSU Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better
One of two critical thinking courses offered by the English department Focuses on developing critical analysis skills through the evaluation of "real world" modes of communications such as essays, editorials, advertising, propaganda, and electronic media. Designed to improve critical thinking in written arguments by applying established modes of reasoning, analyzing rhetorical strategies, evaluating logical fallacies, and detecting propaganda techniques. Builds on the reading and writing skills developed in English 101.

127 Creative Writing (3) **UC:CSU RPT 3
Lecture 3 hours.
Prerequisite: English 101 with a grade of "C" or better.
Presents a workshop in creative writing. Class and instructor informally discuss and criticize students' plays, poems, short stories, and essays. Encourages student participation in campus literary publication.

203 World Literature I (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better
English 102 recommended but not required.
This course explores the works of great writers of the world from ancient times through the Renaissance.

204 World Literature II (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Continues the study of English 203, presenting great books of the world from the Renaissance to recent times. English 203 is not a prerequisite.

205 English Literature I (3) UC:CSU (CAN ENGL 8)
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better
English 102 recommended but not required.
Surveys English literature from the Anglo-Saxon period through the 18th century. Required for English majors.

206 English Literature II (3) UC:CSU (CAN ENGL 10) (ENGLISH 205+206=CAN ENGL SEO B)
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better. English 102 recommended but not required.
Continues the study of English 205, covering English literature from the 18th century to the 20th century. English 205 is not a prerequisite. Required for English majors.

207 American Literature I (3) UC:CSU (CAN ENGL 14) Lecture 3 hours.
Prerequisite: English 101 with a grade of "C" or better
English 102 recommended but not required.
Surveys American literature from its beginning to 1860 .
208 American Literature II (3) UC:CSU (CAN ENGL 16) (ENGLISH 207+208=CAN ENGL SEO B)
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Continues the study of English 207, covering American literature from 1860 to the 20th century. English 207 is not a prerequisite.

209 California Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better. English 102 recommended but not required.
The course presents selected works by writers observing California life. Readings from sources as varied as Native-American legends and Hollywood memoirs will demonstrate such aspects of the study of literature as plot and structure, character, point of view, figurative discourse.

## 210 Twentieth Century Novel (3) CSU

Lecture 3 hours.
${ }^{*} U C$ transferability pending approval.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Studies significant novels of the twentieth century. Works discussed include landmark American, British, and European novels. Explores the evolution of the novel in and the primary themes of the twentieth century.

211 Fiction (3) *UC:CSU (CAN ENGL 18) - RPT 1
Lecture 3 hours
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Emphasizes selected great novels and short stories from French, German, Russian, English, American, and Spanish literature.

## 212 Poetry (3) UC:CSU (CAN ENGL 20) - RPT 1

Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Emphasizes reading, discussion and analysis of selected poems. Designed to increase the student's understanding and appreciation of all forms of poetry.

213 Dramatic Literature (3) UC:CSU (CAN ENGL 22) - RPT 1
Lecture 3 hours.
Same as Theater 125. Credit not given for both courses.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Surveys dramatic literature from the beginnings to the present day with emphasis on the works of the major playwrights, such as Sophocles, Shakespeare, Moliere, Shaw, Ibsen, O'Neill, and Williams.

## 214 Contemporary Literature (3) UC:CSU

Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Concentrates on significant literature since 1920, primarily American and British. Includes lectures and discussions, oral and written reports. Emphasis is placed upon critical analysis of short story, novel, drama, and poetry.

## 215 Shakespeare I (3) UC:CSU

Lecture 3 hours
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Introduces the life and works of William Shakespeare, with emphasis on Shakespeare's milieu. Emphasizes detailed study of several history plays, earlier comedies and tragedies.

216 Shakespeare II (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
May be taken before English 215.
Introduces the life and works of William Shakespeare, with emphasis on Shakespeare's milieu. Emphasizes detailed study of Shakespeare's later works, especially the major tragedies.

## 218 Children's Literature (3) CSU

Lecture 3 hours
Prerequisite: English 101 with a grade of " $C$ " or better.
A survey of literature suitable for children of different age levels. Emphasis will be placed on story telling, acquaintance with authors and the development in children of desirable attitudes toward literature. Recommended for prospective nursery, kindergarten, elementary and secondary teachers. Parents will find the course helpful in discovering what reading material is available.

## 219 Literature of American Ethnic Groups (3) UC:CSU

Lecture 3 hours.
Prerequisite: English 101 with a grade of "C" or better.
A survey of the literature of American ethnic writers: stories, novels, plays, poems, essays, and other non-fiction prose works. Works are examined in the context of traditional and contemporary problems of American ethnic groups, each of which offers a unique contribution to American society.

239 Women in Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better
English 102 recommended but not required.
This class focuses on major writings by women from ancient times to the present. The course considers the reflection of women's changing status as seen by women writers.

240 Literature and the Motion Picture I (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of "C" or better.
This course examines the comparative arts of literature and the motion picture. Includes readings of literary works, both classic and modern, screenings of film versions based upon these literary sources, discussion, and writing of critical papers.

250 Mythology and Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better
English 102 recommended but not required.
Introduces the mythology of Western and Near-Eastern civilizations, broadened to include such other elements of folk tale as marchen, fairy tale, legend, etiological tale, fable, myth, and motif.

251 The Short Story (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better.
English 102 recommended but not required.
Focuses on the short story tradition, especially by Americans, exploring major works and developments within the genre. Elements of fiction as expressed by diverse authors will be examined.

252 The English Bible as Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better. English 102 recommended.
A study of the Bible with the Oxford Annotated Revised Standard Version with the Apocrypha as the basic text.

270 Science Fiction - Fantasy (3) UC:CSU (J.R.R. Tolkien, etc.)

Lecture 3 hours.
Prerequisite: English 101 with a grade of " $C$ " or better. English 102 recommended but not required.
Presents science fiction as literature, with emphasis on the use of mythology; science fiction by scientists and nonscientists, political and philosophical oriented science fiction, and science fiction as fantasy and escape literature.

185 Directed Study - English (1) †UC:CSU - RPT 2
285 Directed Study - English (2) $\dagger$ UC:CSU
385 Directed Study - English (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in English on a contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - English
See Cooperative Work Experience Education.
*UC Credit Limit: English 211 and 212 combined, maximum 6 units. **UC Credit Limit: Maximum one repeat. $\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Environmental Design

101 Elements of Architecture (3) UC:CSU
Lecture 1 hour, Laboratory 5 hours.
Introduces the principles of design common to architecture and visual arts. Integrates the theory of architectural design with historical and cultural foundations. Develops analytical skills in visual perception and critical awareness and visits to construction sites.

## Environmental Science

1 The Human Environment: Physical Processes (3) UC:CSU Lecture 3 hours.
Introduction to the environmental mechanisms that constitute our life support systems and the social, political and economic factors that are the ultimate cause of these problems. This includes an examination of the difference between science and technology and the limits to technological solutions to our environmental problems. The basic science required to understand how our environmental systems work is presented followed by analysis of the essential components of our life support systems and how we impact them. Finally, the major environmental issues are analyzed along with potential solutions to these problems where they exist.

2 The Human Environment: Biological Processes (3) **UC:CSU Lecture 3 hours.
Introduction to the biological aspects of our environmental problems including an examination of large scale systems including population and ecosystems and individual scale issues such as nutrition and toxicity. We will examine the ability of species to adapt leading to an examination of pesticide resistance and development of antibiotic resistant pathogens. Global population will be examined as well the mechanisms of population dynamics. This information is the foundation for discussion and analysis of the relationship between population and economics (standard of living), the potential for global pandemics and the other results of uncontrolled population growth and an examination of population control programs. The structure of ecosystems and the dynamics of ecosystem function will be presented accompanied by analysis of topical ecosystem issues. This information will be used to develop an understanding of the problems in setting environmentally meaningful standards for toxins and other pollutants. In the time remaining, various issues of individual importance will be discussed such as nutrition, toxicity, birth defects, and cancer.

185 Directed Study - Environmental Science (1) $\dagger$ UC:CSU - RPT 2
285 Directed Study - Environmental Science (2) $\dagger$ UC:CSU
385 Directed Study - Environmental Science (3) †UC:CSU
Prerequisite: A minimum of 3 units in Environmental Science. Conference 1 hour per unit.
Allows students to pursue Directed Study in Environmental Science on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.
** UC Credit Limit: Environmental Science 2 and Agriculture 901 combined, maximum one course.

## Equine Science

See additional courses under Animal Science 600-699
680 Basic Mule Principles (2)
Lecture 2 hours.
Formerly Equine Science 99A.
It is highly recommended for safety reasons that students have completed a course in basic equitation before enrolling in this course.
Schooling and training of mules for riding and utility purposes. Emphasis will be placed on controlling and conditioning the mule in a manner safe for students and mule.

681 Advanced Mule Handling (2)
Lecture 2 hours.
Formerly Equine Science 99B.
Prerequisite: Equine Science 680
Prepares the trainer to train for event work, packing and driving.
685 Special Topics for the Mule Trainer (6)
Laboratory 12 hours.
Recommended Preparation: Equine Science 680 and 681.
This course is offered in six 1-unit (2 hour) modules.
This modular series trains the students in specific aspects of mule handling, care and maintenance not covered in introductory classes. At the completion of this series, students will have learned essential principles to enable them to work in the mule industry.

685A Farrier Science for Mules (1)
Laboratory 2 hours.
Recommended Preparation: Equine Science 680 and 681.
This course will introduce the student to the basic principles and special requirements of mule hoof care. It will discuss and demonstrate the specifics of mule shoeing.

## 685B Fundamentals of Mule Driving (1)

Laboratory 2 hours.
Recommended Preparation: Equine Science 680 and 681.
This course will teach the student the basics of harnessing mules then using the mules to walk along in pairs while in harness. It will include the techniques of using harnessed mules to pull wagons and loads.

## 685C Health Care and Grooming for Mules (1)

Laboratory 2 hours.
Recommended Preparation: Equine Science 680 and 681.
This course will introduce the student to the basics of health care and grooming that are specific to the mule. Various grooming methods and required supplies are introduced. Specific diseases and conditions are discussed. Prevention and treatment are stressed.

685D Mule Packing, Loading and Hitching (1)
Laboratory 2 hours.
Recommended Preparation: Equine Science 680 and 681.
This course teaches the proper way to pack a mule, to apply loads and then hitch the mule for packing to a specific location. Various knots, equipment and supplies are introduced. Planning for a pack trip is included.

685E Diagnosing and Treating Mule Diseases and Injuries (1) Laboratory 2 hours.
Recommended Preparation: Equine Science 680 and 681.
This course will introduce the student to common mule diseases and how to diagnose them. Gives basic symptoms and treatments. Various common injuries and their treatment are discussed. Common medicines are discussed. How to select a good mule vet is discussed.

## 685F Theory Versus Practice in Mule Training (1)

Laboratory 2 hours.
Recommended Preparation: Equine Science 680 and 681.
This course discusses the difference between the theory of mule training and the practice used in mule training. Different theories are discussed and the modification that might be used in actual practice. Students will write a mule training program.

## Finance

## 1 Principles of Finance (3) CSU

Lecture 3 hours.
Examines the principles of money, credit, banking, and the role of the Federal Reserve System and government policy on the financial environment. Studies types of financial instruments, interest rates, capital management, money and capital markets and currency fluctuations and hedging for global business. Includes detailed instruction on the Time Value of Money and its application to calculations in personal and business finance.

## 2 Investments (3) CSU

Lecture 3 hours.
This course emphasizes the study of the stock market from a practical viewpoint. It includes developing an understanding of diversification, allocation, growth stocks, value stocks, dividends, technical analysis, fundamental analysis, bonds and options. The course also covers real estate and other investment opportunities.

8 Personal Finance and Investments (3) CSU
Lecture 3 hours.
An examination of the concepts and tools necessary for the rational allocation of personal resources. Emphasis is on the significant financial decisions facing each household during its life cycle, including budgeting, record keeping, home ownership, consumer purchases, credit, insurance, investing, retirement and estate planning.

## French

## 1 Elementary French I (5) UC:CSU (CAN FREN 2)

Lecture 5 hours.
Recommended: Concurrent enrollment in French 101.
Recommended: Eligibility for English 28.
Students with previous knowledge of French should not enroll in French 1, but in a higher level Native speakers should enroll in French 4, 5, or 6
Introduces the fundamentals of pronunciation and grammar, practical vocabulary and useful phrases. Focuses upon the ability to understand, speak, read, and write in simple French. Exposes the student to French culture. English is only used when it is necessary to explain difficult grammatical concepts; otherwise, the class is conducted in French. This course corresponds to the first year of high school French.

2 Elementary French II (5) UC:CSU (CAN FREN 4) (FRENCH 1+2=CAN FREN SEO A)
Lecture 5 hours.
Prerequisite: French 1 or one year of high school French with a grade of
"C"
"C" or better in either case.
Recommended: Concurrent enrollment in French 101
Recommended: Eligibility for English 28.
Students with previous knowledge of French should not enroll in French 2, but in a higher level. Native speakers should enroll in French 4, 5, or 6
Continues the fundamentals of French pronunciation and grammar, practical vocabulary and useful phrases. Stresses the ability to understand, speak, read and write in simple French. Exposes the student to French culture. The class is conducted entirely in French except for grammar clarification. This course corresponds to the second year of high school French.

## 3 Intermediate French I (5) UC:CSU (CAN FREN 8)

Lecture 5 hours.
Prerequisite: French 2 or two years of high school French with a grade of " $C$ " or better in either case.
Recommended: Concurrent enrollment in French 101.
Recommended: Eligibility for English 28.
Note: Concurrent enrollment in French 8 is strongly recommended for non-native speakers.
Not offered every semester
Completes the study of basic French grammar. Continued emphasis upon French pronunciation, practical vocabulary, and useful phrases. Stresses the ability to understand, speak, read, and write in intermediate French Includes more challenging texts and continued improvement in writing and speaking through written and oral dialogues. Further exposure of French culture as a background for conversation and reading. The class is conducted entirely in French except when English clarification is necessary for grammatical concepts. This course corresponds to the third year of high school French.

4 Intermediate French II (5) UC:CSU (CAN FREN 10) (FRENCH 3+4=CAN FREN SEO B)

## Lecture 5 hours.

Prerequisite: French 3 or three years of high school French with a grade of " $C$ " or better in either case.
Recommended: Concurrent enrollment in French 101.
Note: Concurrent enrollment in French 8 is strongly recommended for non-native speakers.
Not offered every semester
Utilizes more advanced reading of texts and cultural material from France and French-speaking countries, in conjunction with conversation and discussion. Incorporates review of the basic structure and grammar of the French language. Emphasizes written composition as well as listening comprehension.

## 5 Advanced French I (5) UC:CSU

Lecture 5 hours.
Prerequisite: French 4 with a grade of "C" or better.
Recommended: Concurrent enrollment in French 101.
Note: Concurrent enrollment in French 8 is strongly recommended for non-native speakers.
Not offered every semester.
Continues the study of grammar and of literature from France and French-speaking countries. Includes advanced composition, and the use of practical idioms. Stresses oral and written reports on France and Frenchspeaking countries.

6 Advanced French II (5) UC:CSU
Lecture 5 hours.
Prerequisite: French 5 with a grade of " $C$ " or better.
Note: Concurrent enrollment in French 8 is strongly recommended for non-native speakers.
Not offered every semester
Studies some important texts from the seventeenth century through the present day, with special emphasis on oral discussion and written analysis of the culture and literature of France and French-speaking countries.

## 8 Conversational French (2) CSU RPT 3

## Lecture 2 hours.

Prerequisite: French 2 or equivalent with a grade of " $C$ " or better.
Recommended: Concurrent enrollment in French 101.
This course is offered as a credit/no credit course only.
Not offered every semester.
Continues to stress the fundamentals of French pronunciation. Develops conversational skill and fluency through a review of basic French grammar (French $1 \& 2$ ) and the core vocabulary of everyday situations, including cultural experiences. French is used throughout except in instances in which clarification in English is necessary. This course is intended for students who have had the equivalent of French 2, and is offered on a credit/ no credit basis only.

## 10 French Civilization (3) UC:CSU

Lecture 3 hours.
No knowledge of French required.
Note: May be taught in one-unit modules: French 10A, 10B, and 10C. All three modules must be taken for UC transfer credit to be granted. French 10A (1 unit) is offered in conjunction with the Summer in Paris program. This course is offered as a credit/no-credit course only.
Not offered every semester.
This course consists of lectures and discussions in English on the geography, history, government and institutions of France, the life and customs of its people, its literature, arts and sciences, and its contribution to civilization. It is especially recommended to all students of French.

81 Practical French for Business (3)
Lecture 3 hours.
Prerequisite: French 1 or equivalent.
Not offered every semester.
This course consists of lectures in English and exercises and conversational practice in French, related to commercial and marketing environments. Students will acquire skills in business correspondence in French and familiarize themselves with business and social practice in French-speaking countries.

## 101 French Language Laboratory (1) CSU - RPT 3

Laboratory 2 hours.
Note: Recommended for all students enrolled in French 1, 2, 3, 4, 5, or 8
This course is offered as a credit/no credit course only.
This is a credit/no-credit course. Students receive one unit of college credit with no letter grade by spending at least 32 hours over the semester using the equipment and completing the lab workbook assignments. This language workshop uses multi-media (video, audio and computers) to enhance instruction. Students attend The Learning Center (TLC), the Media Center, and/or the Language Lab.

## 185 Directed Study - French (1) †UC:CSU - RPT 2

285 Directed Study - French (2) $\dagger$ UC:CSU
385 Directed Study - French (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in French on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Geography

## 1 Physical Geography (3) UC:CSU (CAN GEOG 2)

Lecture 3 hours.
May be offered. as an honors section.
Studies the earth's physical environment using an Earth Systems Science approach. Emphasis is given to earth-sun relationships, atmospherehydrosphere interactions related to weather and climate, lithospheric processes and geomorphology, integration of climate, soils and biomes and their spatial patterns. Tools used for geographic inquiry may include maps, satellite imagery, geographic information systems, and field investigation.

2 Cultural Elements of Geography (3) UC:CSU (CAN GEOG 4) Lecture 3 hours.
May be offered as an honors section
Studies the diversity of human populations, their cultural origins, diffusion and contemporary spatial patterns. Topics include demography, languages, religions, political units, economic activities and development and urbanization. Emphasis is given to interrelationships between human activities and the biophysical environment including environmental alteration. Specific countries, areas or cultural groups illustrating various topics are utilized as case studies. Tools of geographic inquiry may include maps, satellite imagery, and geographic information systems.

3 Introduction to Weather and Climate (3) UC:CSU
Lecture 3 hours.
Same as Meteorology 3. Credit not given for both courses.
Studies the earth's atmospheric environment using an Earth Systems Science approach. Emphasis is given to Earth-sun relationships, solar radiation inputs, earth radiation emission and temperature, global warming, atmospheric moisture measurements, adiabatic processes, clouds and precipitation formation, atmospheric pressure and wind flow, storm development, weather forecasting, and climate and climate change. Tools used for inquiry may include weather maps, satellite imagery, and geographic information systems.

7 World Regional Geography (3) UC:CSU
Lecture 3 hours.
A geographical survey of the world's major regions with emphasis on those features important to an understanding of current global concerns and problems.

14 Geography of California (3) UC:CSU
Lecture 3 hours.
Delineates the regions of California, their biophysical features and resources in relation to patterns of population and settlement, economic activities, trade, transportation, and environmental problems.

15 Physical Geography Laboratory (2) UC:CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Geography 1.
Supplements the material of Geography 1. Laboratory exercises are used to increase understanding of spatial location and temporal processes on the Earth, to develop skills for map and image analysis, to appraise Earth-sun relationships, to identify major atmosphere-hydrosphere interactions related to weather and climate, to interpret lithospheric processes and geomorphologic features, to analyze the integration of climate, soils and biomes and their spatial patterns. Tools used for laboratory inquiry may include topographic maps, satellite images, selected weather instruments and computer software

20 Field Studies in California Geography (6) CSU
Lecture 6 hours.
Course may be offered as 1 unit modules, Geography 20A-F.
Field surveys of people-land relations on the diverse physical and cultural landscapes of Southern California. These surveys enhance the understanding of past and present cultural environments that people superimpose on their natural environment.

21 Introduction to the Geography of the United States and Canada (3) UC:CSU

Lecture 3 hours.
Provides a regional study of the western United States and Canada, the Eastern United States and Canada, and Alaska and Hawaii. This course explores the physical and cultural geographic backgrounds of AngloAmerica and the current economic and land-use patterns.

22 Introduction to the Geography of Latin America (3) UC:CSU Lecture 3 hours.
Provides a regional study of Mexico, Central America and the Caribbean, and South America. Course examines the physical and cultural backgrounds of Latin America and the current landuse and economic patterns.
Course may be offered as 1 unit modules:

## 22A Geography of Mexico (1) *UC:CSU

22B Geography of Central America and the Caribbean (1) *UC:CSU
22C Geography of South America (1) *UC:CSU

31 Introduction to Geographic Information Systems (3) UC:CSU Lecture 3 hours
(Same as GIS 31. Credit not given for both courses.)
An introduction to fundamentals of GIS, including history of automated mapping; introduction to cartographic principles (scales, coordinate systems, projections, cartographic design); GIS terminology; data structures; topology; data acquisition; spatial analysis; review of hardware/software used in GIS; and applications of GIS technology in science, government, and business.

32 GIS Applications: ArcView (3) CSU
Lecture 2 hours; Laboratory 2 hours.
(Same as GIS 32. Credit not given for both courses.)
Recommended Preparation: Geography 31 or GIS 31, and Computer Science 501.
A brief survey of GIS Fundamentals, emphasizing hands-on experience using computer hardware and GIS software. Emphasis on vector-based data using and an introduction to hands-on work with raster-based data using Spatial Analysis modules. (Currently using ESRI's ArcGIS software: versions upgraded to maintain currency with industry software usage.)

33 Intermediate GIS Applications: ArcView (3) CSU
Lecture 2 hours; Laboratory 2 hours.
(Same as GIS 33. Credit not given for both courses.)
Recommended Preparation: Geography 32 or GIS 32.
More in-depth use of GIS software and familiarization with more advanced GIS software operations. Application of GIS fundamentals and software skills to a semester-long project, from inception and initial planning to data acquisition and final project design, using census and/or other real-world data. Depending on selected project, possible use of 3D, Spatial Analysis, Network Analysis, Model Building, and other modules. (Currently using ESRI's ArcGIS software: versions upgraded to maintain currency with industry software usage.)

36 Cartography and Base Map Development (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as GIS 36. Credit not given for both courses.
Prerequisite: Geog/GIS 31, and Geog/GIS 32 or equivalent.
A comprehensive study of GIS cartography including cartographic principles (such as history, principles, projections, scales, map accuracy), data acquisition methods (such as remote sensing, aerial images, GPS), base map development (scanning, digitizing, and coordinate geometry), and map production using GIS software.

37 Introduction to Global Positioning Systems (GPS) (1) CSU
Lecture 1 hour.
Same as GIS 37. Credit not given for both courses.
Recommended Preparation: Geography 31 or GIS 31.
Introduction to the terminology, equipment, techniques, and technology of GPS, using a hand-held unit to determine location, and completion of a traverse using GPS and a topographic quadrangle, collecting data to be used in a GIS.

38 Spatial Analysis and Modeling (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as GIS 38. Credit not given for both courses.
Prerequisite: Geog/GIS 31, and Geog/GIS 32 or equivalent.
An introduction to spatial analysis, briefly reviewing principles of statistics and relating them to methods of geographically referenced data. Sampling strategies for data structures (raster and vector) used in GIS will be introduced. Single and multi-layer operations (classification, coordination, modeling analysis) and spatial correlation will be covered.

39 GIS in Science, Business, and Government (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as GIS 39. Credit not given for both courses.
Prerequisite: Geography 38 or GIS 38, or equivalent.
An in-depth survey of uses of GIS applications in science, government, and business. Topics include data acquisition, accuracy, analysis, presentation techniques, and legal issues. Individual student projects will include use of hardware and software, data acquisition, base map development, cost benefit analysis, and presentation of map layouts.

40 GIS Internship (1) CSU
Lecture 1 hour.
Same as GIS 40. Credit not given for both courses.
Prerequisite: Geography 38 or GIS 38, or equivalent.
A directed field study in which students apply classroom instruction to real-world GIS projects in the community in a business or government agency while under the supervision of an advisor from the college. The short-term internship will include periodic meetings with the advisor, completion of interim reports, and presentation of a final report.

185 Directed Study - Geography (1) †UC:CSU - RPT 2
285 Directed Study - Geography (2) †UC:CSU
385 Directed Study - Geography (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Prerequisite: A minimum of 3 units in Geography
Allows students to pursue Directed Study in Geography on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.
*UC Credit Limit: Geography 20A, B, C must all be taken for credit to be granted.

## Geographic Information Systems (GIS)

31 Introduction to the Geographic Information Systems (3) UC:CSU Lecture 3 hours.
Same as Geography 31. Credit not given for both courses.
An introduction to fundamentals of GIS, including history of automated mapping; introduction to cartographic principles (scales, coordinate systems, projections, cartographic design); GIS terminology; data structures; topology; data acquisition; spatial analysis; review of hardware/software used in GIS; and applications of GIS technology in science, government, and business.

32 GIS Applications: ArcView (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as Geography 32. Credit not given for both courses.
Recommended Preparation: Geography 31 or GIS 31, and Computer
Science 501.
A brief survey of GIS Fundamentals, emphasizing hands-on experience using computer hardware and GIS software. Emphasis on vector-based data using and an introduction to hands-on work with raster-based data using Spatial Analysis modules. (Currently using ESRI's ArcGIS software: versions upgraded to maintain currency with industry software usage.)

33 Intermediate GIS Applications: ArcView (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as Geography 33. Credit not given for both courses.
Recommended Preparation: Geography 32 or GIS 32.
More in-depth use of GIS software and familiarization with more advanced GIS software operations. Application of GIS fundamentals and software skills to a semester-long project, from inception and initial planning to data acquisition and final project design, using census and/or other real-world data. Depending on selected project, possible use of 3-D, Spatial Analysis, Network Analysis, Model Building, and other modules. (Currently using ESRI's ArcGIS software: versions upgraded to maintain currency with industry software usage.)

36 Cartography and Base Map Development (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as Geography 36. Credit not given for both courses.
Prerequisites: Geography 31 or GIS 31, and Geography/GIS 32 (ArcView) or equivalent.
A comprehensive study of GIS cartography including cartographic principles (such as history, principles, projections, scales, map accuracy), data acquisition methods (such as remote sensing, aerial images, GPS), and base map development (scanning, digitizing, and coordinate geometry), and map production using ArcView and/or MapInfo software.

37 Introduction to Global Positioning Systems (GPS) (1) CSU Lecture 1 hour.
Same as Geography 37. Credit not given for both courses.
Recommended Preparation: Geography 31 or GIS 31.
Introduction to the terminology, equipment, techniques, and technology of GPS, using a hand-held unit to determine location, and completion of a traverse using GPS and a topographic quadrangle, collecting data to be used in a GIS.

38 Spatial Analysis and Modeling (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as Geography 38. Credit not given for both courses.
Prerequisites: Geography 31 or GIS 31, and Geography/GIS 32 (ArcView) or equivalent.
An introduction to spatial analysis, briefly reviewing principles of statistics and relating them to methods of geographically referenced data. Sampling strategies for data structures (raster and vector) used in GIS will be introduced. Single and multi-layer operations (classification, coordination, modeling analysis) and spatial correlation will be covered.

39 GIS in Science, Business, and Government (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as Geography 39. Credit not given for both courses.
Prerequisite: Geography 38 or GIS 38, or equivalent.
An in-depth survey of uses of GIS applications in science, government, and business. Topics include data acquisition, accuracy, analysis, presentation techniques, and legal issues. Individual student projects will include use of hardware and software, data acquisition, base map development, cost benefit analysis, and presentation of map layouts.

## 40 GIS Internship (1) CSU

Lecture 1 hour.
(Same as Geography 40. Credit not given for both courses.)
Prerequisite: Geography 38 or GIS 38, or equivalent.
A directed field study in which students apply classroom instruction to real-world GIS projects in the community in a business or government agency while under the supervision of an advisor from the college. The short-term internship will include periodic meetings with the advisor, completion of interim reports, and presentation of a final report.

## Geology

See also Environmental Science 1, 7; Oceanography 1, 10.
1 Physical Geology (3) *UC:CSU (CAN GEOL 6) (GEOLOGY 1+6=CAN GEOL 2)
Lecture 3 hours.
Introduces the student to the general field of geology; including a study of the work of rivers, winds, glaciers, oceans, volcanism and seismology in shaping the earth, with emphasis upon the relationships existing between humans and the geological processes.

4 Physical Geology \& Laboratory (5) *UC:CSU
Lecture 4 hours; Laboratory 2 hours.
Same as Geology 1 and 6 combined.
A study of the work of rivers, winds, glaciers, oceans, volcanism, and seismology in shaping the earth, with emphasis upon the relationships existing between humans and the geologic processes. Laboratory exercises in rock and mineral identification, and map interpretation.

6 Physical Geology Laboratory (2) *UC:CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Geology 1 or concurrent enrollment.
Laboratory exercises in identification of rock-making and ore minerals, igneous, metamorphic, and sedimentary rocks. Interpretation of topographic maps, geologic maps and aerial photographs. Geology 6 is intended to satisfy physical science lab credits for all students concurrently enrolled in Geology 1.

Directed Study - Geology (1) †UC:CSU - RPT 2
285 Directed Study - Geology (2) †UC:CSU
385 Directed Study - Geology (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Geology on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.
*UC Credit Limit: Geology 1, 4 and 6 combined, maximum 5 units. **UC Credit Limit: Geology 22A, B, C, D must be taken for a minimum of 3 units to transfer.

## Health

7 Physical Fitness and Nutrition (3) *UC:CSU
Lecture 3 hours.
Considers the nature and importance of physical fitness and good nutrition in our personal and social development. Analyzes and evaluates various types of muscular activities in terms of students' needs and interests. Encourages the selection of nutritive foods for weight control, disease prevention, and general well-being.

8 Women's Personal Health (3) UC:CSU Lecture 3 hours.
This course provides a comprehensive overview of critical, epidemiological, contemporary, and cultural/ethnic women's health topics and a framework for informed personal decision making.

9 Health for the Mature Individual (3) CSU
Lecture 3 hours.
Designed to meet the personal needs and interests of mature and older students in the field of aging. Emphasis is placed on promoting and maintaining physical, emotional, and social good health, despite possible limitations of advancing years.

11 Principles of Healthful Living (3) *UC:CSU
Lecture 3 hours.
Not an activity class.
Note: Credit given for either Health 10 or Health 11, but not both.
Encompasses the same content as Health 10 but explores the material in greater depth.

185 Directed Study - Health (1) CSU - RPT2
285 Directed Study - Health (2) CSU

385 Directed Study - Health (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Health Education on a contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - Health
See Cooperative Work Experience Education
*UC Credit Limit: Maximum one cours.

## History

1 Introduction to Western Civilization I (3) UC:CSU (CAN HIST 2) Lecture 3 hours.
May be offered as an honors section.
Teaches historically the major elements in the Western heritage from the earliest Mesopotamian civilizations through the religious reformations of the sixteenth century. Introduces students to the ideas and institutions central to western civilization, and acquaints them, through reading and critical discussion, with representative contemporary documents and writings of enduring interest.

2 Introduction to Western Civilization II (3) UC:CSU (CAN HIST 4) (HISTORY 1+2=CAN HIST SEO A)
Lecture 3 hours
Teaches historically the major elements of the Western heritage from the Age of Absolutism in the 17th century to the present. Introduces students to the ideas and institutions central to western civilization, and acquaints them, through reading and critical discussion with representative contemporary documents and writings of enduring interest.

3 History of England and Great Britain I (3) UC:CSU
Lecture 3 hours.
Surveys the political, economic, social, and cultural developments of the British Isles from the earliest times through the seventeenth century.

4 History of England and Great Britain II (3) UC:CSU
Lecture 3 hours.
Traces the political, economic, social, and cultural development of the British Isles and the British Empire from the eighteenth century to the present.

5 History of the Americas I (3) UC:CSU
Lecture 3 hours.
Surveys the political, economic, social, and intellectual history of Latin America from the Age of Exploration, conquest of the indigenous people of the Americas, through the colonial period.

6 History of the Americas II (3) UC:CSU
Lecture 3 hours.
Explores the political, economic, social, and intellectual history of Latin America and the development of the United States during the nineteenth and twentieth centuries with special emphasis on their interpolitical relationship.

11 Political and Social History of the United States I (3) *UC:CSU (CAN HIST 8)
Lecture 3 hours.
May be offered as an honors section.
Surveys the history of the United States from pre-Columbian times to 1865. Devotes particularly attention to political and social events as well as the development of America's central institutions.

12 Political and Social History of the United States II (3) **UC:CSU (CAN HIST 10) (HISTORY 11+12=CAN HIST SEO B) Lecture 3 hours.
Surveys the political, economic, social, and intellectual history of the United States from the Civil War through the Twentieth Century.

13 The United States in the Twentieth Century (3) **UC:CSU Lecture 3 hours.
This course covers the main events, actors, and themes of the 20th century, primarily focusing on their impact on American history (i.e. cultural, political, and social movements), including a discussion of America's central institutions.

20 History of California and the Pacific Coast (3) UC:CSU Lecture 3 hours.
Surveys the history of the Pacific Coast of North America from the period of the explorations to the present. Emphasizes especially the cultural, political, economic, and social development of California.

## 27 History of Africa (3) UC:CSU

Lecture 3 hours.
Covers the history of Africa from ancient times to the present. Includes the historical ramifications of the African Diaspora to the Western Hemisphere.

29 Asian Civilization: The Middle East (3) UC:CSU
Lecture 3 hours.
The course traces the historical development of the Middle East from the rise of the earliest Middle Easter civilizations to the present, including a consideration of the major political and social issues and conflicts of the modern era.

39 History of South Asia (3) UC:CSU
Lecture 3 hours.
Surveys the history and culture of South Asia, or the Indian subcontinent including the modern nations of Bangladesh, India, and Pakistan, from the development and evolution of its earliest cultures and civilization to the present.

41 The African-American in the History of the United States I (3) *UC:CSU
Lecture 3 hours.
Surveys United States history and major American institutions from the early Colonial Era through the Civil War with special emphasis on the contributions of African-American to the nation's political and social development.

42 The African-American in the History of the United States II (3) **UC:CSU
Lecture 3 hours.
Surveys United States history and major American institutions from the end of the civil war to the present time, with special emphasis on the African-Americans in the social and political development of American civilization.

43 The Mexican-American in the History of the United States I (3) *UC:CSU
Lecture 3 hours.
Traces the historical evolution of the Mexican and his culture and institutions to 1865, and surveys the contributions of the MexicanAmerican to the United States, with particular emphasis on the Southwest and the causes and consequences of the Mexican-American War.

44 The Mexican-American in the History of the United States II (3) **UC:CSU
Lecture 3 hours.
Traces the historical evolution of the Mexican-American since the 1850s, and analyzes the aftermath of the Mexican-American War, legal and illegal immigration from Mexico, the civil rights movement, and the contributions of the Mexican-Americans to the American experience. Includes a discussion of basic American institutions.

52 The Role of Women in the History of the U.S. (3) UC:CSU Lecture 3 hours.
Explores the political, economic, social, and intellectual history of women in the development of the United States from the early colonial era to the present day with special emphasis on their contributions as well as their problems.

86 Introduction to World Civilizations I (3) UC:CSU
Lecture 3 hours.
Traces the development and interrelationships of the major world civilizations and their cultural traditions and contributions from the earliest times to the beginning of the era of European expansion in the sixteenth century.

87 Introduction to World Civilization II (3) UC:CSU Lecture 3 hours.
Traces the development and interrelationships of the major world civilizations and their cultural traditions and contributions from the era of European expansion in the sixteenth century to the present.

185 Directed Study - History (1) †UC:CSU - RPT 2
385 Directed Study - History (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in History on a contract basis under the direction of a supervising instructor.
${ }^{*}$ UC Credit Limit: History 11, 41 and 43 combined, maximum one course. **UC Credit Limit: History 12, 13, 42 and 44 combined, maximum one course.
$\Delta$ UC Credit Limit: No credit if taken after History 11 or 41.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Horse Science

See course listings under Animal Science 600-699.

## Horticulture, Ornamental

See course listings under Plant Science 700-899.

## Humanities

6 Great People, Great Ages (3) UC:CSU - RPT 1
Lecture 3 hours.
May be offered as an honors section.
An interdisciplinary program in the liberal arts, which covers an historical period such as the Renaissance from the perspectives of philosophy, art, music, literature, architecture, science, etc.

31 People in Contemporary Society (3) UC:CSU
Lecture 3 hours.
Surveys humanity's cultural development from the Renaissance to the present. Presents general information on the arts, literature, and ideas of the Renaissance, Baroque, Neoclassic, and Romantic periods. Concludes an examination of Twentieth Century culture in particular. Since Humanities 30 and 31 are independent of each other, they need not be taken in successive order.

60 People and Their World: Technology and the Humanities (3) UC:CSU
Lecture 3 hours.
Examines art, music, literature, drama, philosophy, and history in an exploration of the urban environment and society as it has been affected by technology.

61 People and Their World: The Creative Process (3) CSU Lecture 3 hours.
Surveys humanity's creativity as expressed in myths and dreams and explores works of art and literature to discover the range of humanity's creative instinct. Involves art, music, literature, psychology; drama, philosophy, and history.

185 Directed Study - Humanities (1) †UC:CSU - RPT 2
385 Directed Study - Humanities (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in humanities on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Industrial Technology

Industrial Technology courses are listed individually under sub-headings, (e.g., Industrial Technology - Machine Shop/CNC) Automotive Service Technology - Listed separately Drafting-Mechanical (includes CAD)

Electronics - Listed separately Engineering-Mechanical - Listed separately Machine Shop/CNC (includes CAM) Welding

Industrial Technology classes are affiliated with the Society of Manufacturing Engineers and American Welding Society.

185 Directed Study - Industrial Technology (1) CSU - RPT 2
285 Directed Study - Industrial Technology (2) CSU
385 Directed Study - Industrial Technology (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Industrial Technology on a contract basis under the direction of a supervising instructor.

911-941
Cooperative Work Experience Education Industrial Technology
See Cooperative Work Experience Education

## Industrial Technology (Drafting - Mechanical)

105 Industrial Print Reading I (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Provides training in reading basic engineering blueprints widely used in contemporary manufacturing industries. Both the visualization and interpretation facets of reading are given extensive coverage. Exposure and analysis of common drawing types, views, lines, dimensions, tolerances, callouts, notes, symbology; and revision procedures are included.

110 Mechanical Computer-Assisted Drafting I (3) UC:CSU
Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 110. Credit not given for both courses.
A foundational course in the theory and practice of mechanical computerassisted drafting. Topics include technical sketching, hardware devices, software utilization, orthographic projection, single and multiple views, and basic dimensioning standards.

115 Mechanical Computer-Assisted Drafting II (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 115. Credit not given for both courses.
An elementary course in the theory and practice of mechanical computerassisted drafting. Units include pictorial sketching, computer equipment, software manipulation, isometric projection, oblique projection, and pictorial dimensioning conventions.

205 Technical Descriptive Geometry (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Same as E.M. 205. Credit not given for both courses.
Provides training in the analysis and solution of orthographic projection problems through application of the fundamental principles of descriptive geometry. Emphasis is placed on exposure to and interpretation of points, lines, and planes in primary, secondary, and successive auxiliary views. Theory and practice are included that involve visualization and graphic representation of intersections, angles, parallelism, perpendicularity, and revolutions.

210 Mechanical Computer-Assisted Drafting III (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 210. Credit not given for both courses.
An introductory course in the principles and practices of mechanical computer-assisted drafting. Areas covered include basic sectional vies, cutting planes, section lining, basic auxiliary views, angle determination, and transfer distances.

215 Mechanical Computer-Assisted Drafting IV (3) CSU Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 215. Credit not given for both courses.
A basic course in the concepts and skills of mechanical computer-assisted drafting. Units include detail drawings, dimensional tolerancing, feature specification, assembly drawings, parts list generation, and screw thread callouts.

310 Mechanical Computer-Assisted Drafting V (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 310. Credit not given for both courses.
An intermediate level course in concepts and skills of mechanical computer-assisted drafting. Topics covered include advanced details with multiple sectional views, and advanced details with primary and secondary auxiliary views.

315 Mechanical Computer-Assisted Drafting VI (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 315. Credit not given for both courses.
A mid-level course in the concepts and skills of mechanical computerassisted drafting. Units include surface texture specification detail assemblies with welding symbology, sheet metal details with flat patterns, and geometric dimensioning and tolerancing.

410 Mechanical Computer-Assisted Drafting VII (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 410. Credit not given for both courses.
An advanced course in the theory and practice of computer-aided drafting. Topics included will be advanced multiview and pictorial assemblies and complete sets of working drawings that utilize ANSI precision fits in their manufacture.

415 Mechanical Computer-Assisted Drafting VIII (3) CSU
Lecture 1 hour; Laboratory 5 hours.
Same as E.M. 415. Credit not given for both courses.
An advanced course in the theory and practice of computer-aided drafting. Areas of focus will include the construction, editing, and display of three-dimensional wire-frame, surface, and solid models of rectangular and cylindrical parts.

## Industrial Technology (Machine Shop-CNC)

130 Technology of Metal Machining Processes I (3) Lecture 1; Laboratory 5 hours.
An introduction to the fundamentals of metal-machining processes. Theory is supplemented with demonstrations and/or practice on lathes, mills, grinders, and drills. The course conveys concepts of metal-machining to: draftspersons, engineers/designers, NC programmers/ operators, QC inspectors; and provides entry-level skills to machinists, machine operators, and toolmakers.

140 Fundamentals of CNC Technology (3)
Lecture 1 hour; Laboratory 5 hours.
Acquaints the beginning student in numerical control with the fundamental concepts underlying this new science. Studies the format and manual preparation of tapes for a variety of basic numerical contro Systems. Provides practical experience in the set up and operation of numerical controlled machine tools employing point-to-point, continuous path and circular interpolation machining control.

230 Technology of Metal Machining Processes II (3)
Lecture 1 hour; Laboratory 5 hours.
Recommended Preparation: Industrial Technology 130.
Increases the depth and breadth of understanding of the theoretical concepts and practical skills introduced in Industrial Technology 130 The students will advance their studies in metallurgy theory and practice, engineering materials, metrology, and conventional machining techniques.

244 CNC Programming and Machine Operation - Lathe (3)
Lecture 1 hour; Laboratory 5 hours.
Recommended Preparation: Industrial Technology 140 and 130. Continues the study of N/C part program preparation begun in Industrial Technology 140 and develops the techniques of planning for efficient operation sequencing. Compares N/C, CNC and DNC; including examination of these techniques in relation to CAD/CAM. Emphasizes writing and running CNC Lathe programs.

248 CNC Programming and Machine Operation - Mill (3)
Lecture 1 hour; Laboratory 5 hours.
Recommended Preparation: Industrial Technology 140 and 130.
Acquaints the advanced student with three axis CNC applications involving manufacturing planning, tooling design and/or specification, CNC mill programs employing full 3 -axis positioning and implementation of programs using CNC mill equipment in the CAM lab. Students will learn and practice microcomputer assisted part programming of CNC mill.

330 Technology of Metal Machining Processes III (3)
Lecture 1 hour; Laboratory 5 hours.
Recommended Preparation: Industrial Technology 230.
Emphasis is placed on the development of skill and concepts learned in Industrial Technology 130 and Industrial Technology 230 for those persons who will be employed in the metal-machining industry. Close tolerance work will be required. Additional techniques such as jig boring will be introduced.

332 Projects Laboratory in Metal Machining Processes I (3) Lecture 1 hour; Laboratory 5 hours.
Recommended Preparation: Industrial Technology 230
The course develops skills in the techniques of design, planning, and execution. Prototype work not possible in regular classes will be covered. Emphasis is placed on developing a project that requires extensive job planning, independent study, and machining.

338 Metal Machining \& CNC for the Manufacturing Engineer (3) CSU Lecture 2 hours; Laboratory 3 hours.
An overview of the fundamentals of metal machining processes with an overview of computer automated machining using CNC machine tools.

346 CAM Programming Using Surf CAM (3) CSU
Recommended Preparation: Industrial Technology 140
Computer-aided manufacturing CNC programming using Surf CAM software. 2D and 3D geometry creation and manipulation, cutter selection \& parameters, tool path creation and verification covered. Students will complete CNC programming assignments using Surf CAM.

444 Projects Laboratory-CNC Lathe Programming (3)
Lecture 1 hour; Laboratory 5 hours.
Recommended Preparation: Industrial Technology 244.
Develops skills in the techniques of design, planning, and execution of computer numerical control programs for a CNC lathe. Part programs and CNC programming practices not possible in Industrial Technology 244 will be covered. Emphasis is placed on developing a project to be programmed and machined using a CNC lathe, requiring extensive job planning, independent study and development.

448 Projects Laboratory-CNC Mill Programming (3)
Lecture 1 hour; Laboratory 5 hours.
Recommended Preparation: Industrial Technology 248.
Develops skills in the techniques of design, planing, and execution of computer numerical control programs for a CNC mill. Part programs and CNC programming practices not possible in Industrial Technology 248 will be covered. Emphasis is placed on developing a project to be programmed and machined using a CNC mill, requiring extensive job planning, independent study and development.

601 Robotics Workshop (2)
Lecture 1 hour; Laboratory 2 hours.
Introductory course in Robotics and Manufacturing Technology covering safety, basic circuit theory, resistor color coding, use of DMM, soldering, integrated circuits, microprocessors, Moore's Law, computer controlled machines and the future of manufacturing. Students will build and program robots and develop computer control programs to operate robots.

602 Advanced Robotics Workshop (2)
Lecture 1 hour; Laboratory 2 hours.
An advanced course in robotics and manufacturing technology covering concepts of feedback control and reactive control of electro-mechanical systems, programming in Basic and C, uses of computers in robot control and metalworking \& machining processes. Students will build, program, and operate a walking robot and a competition vehicular robot to be used in inter-school league activities.

911-941
Cooperative Work Experience Education -
Industrial Technology
See Cooperative Work Experience Education

## Industrial Technology (Pre-Engineering)

171 Civil Engineering and Architecture (4) CSU
Lecture 2 hours; Laboratory 6 hours.
This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. This course covers topics such as: the roles of civil engineers and architects, project planning, site planning, building design, project documentation and presentation.

175 Introduction to Engineering Design (4) CSU
Lecture 2 hours; Laboratory 6 hours.
A course that teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

249 Computer Integrated Manufacturing (4) CSU
Lecture 2 hours; Laboratory 6 hours.
A course that applies principles of robotics and automation. The course builds on computer solid modeling skills developed in Introduction to Engineering Design, and Design and Drawing for Production. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included.

275 Principles of Engineering (4) CSU
Lecture 2 hours; Laboratory 6 hours.
A course that helps students understand the field of engineering and engineering technology. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science, and technology in an engineering problems solving process to benefit people. The course also includes concerns about social and political consequences of technological change.

## 278 Digital Electronics (4) CSU

Lecture 2 hours; Laboratory 6 hours.
A course in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices.

## Industrial Technology (Welding)

## 161 Oxy-Acetylene Welding I (3)

Lecture 1 hour; Laboratory 5 hours
Gives the beginning student a solid foundation in the principles of oxyacetylene welding and cutting. Emphasizes safety along with related information on equipment, methods and materials.

162 Oxy-Acetylene Welding II (3)
Lecture 1 hour; Laboratory 5 hours.
Provides the advanced student with the enhanced concepts and skills required in the oxy-acetylene welding and cutting process. Reviews the basic principles of safety, equipment, methods, and materials then continues with fitting, metallurgy, heat treating, and distortion control factors.

## 223 General Metallurgy I (4)

Lecture 4 hours.
Presents an in-depth study of the production of ferrous metals, the physical and mechanical properties and characteristics of ferrous and nonferrous alloys. Includes a study of the varying effects of heat and alloy composition relative to structure and properties of various metals.

261 Arc Welding I (3)
Lecture 1 hour; Laboratory 5 hours.
Gives the student a basic foundation in the principles and practices associated with shielded metal arc welding. Emphasizes the rules of safety along with fundamental information on the tools and techniques used in the shielded metal process.

## 262 Arc Welding II (3)

Lecture 1 hour; Laboratory 5 hours.
Provides the student with the intermediate level concepts and skills required for successful shielded metal arc welding. Reviews essential safety, equipment, and methodology guidelines then continues with mid-level joint preparation and metallurgical effects on weldments.

361 Inert Gas Arc Welding I (3)
Lecture 1 hour; Laboratory 5 hours.
Gives the student a solid foundation in the principles and practices necessary to construct weldments using gas tungsten arc welding. Stresses welding safety and elementary information on the equipment and procedures critical to the gas tungsten process.

362 Inert Gas Arc Welding II (3)
Lecture 1 hour; Laboratory 5 hours.
Provides the student with the intermediate level theory and techniques required for successful gas tungsten arc welding of ferrous and nonferrous metals. Reviews basic safety and equipment information then explores the gas metal and flux cored arc welding processes.

461 Advanced Arc Welding I (3)
Lecture 1 hour; Laboratory 5 hours.
Gives the advanced student the training required to prepare for "Certification" in the Shielded Metal Arc Welding (SMAW) of structural steel. Lecture and practice concentrates on building codes, fabrication techniques, and testing.

## 462 Advanced Arc Welding II (3)

Lecture 1 hour; Laboratory 5 hours.
Provides the advanced student the skill needed to prepare for "Certification" in the Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW) of structural steel. Discussion and application concentrates on construction regulations, weldment generation, and inspection.

## 911-941

Cooperative Work Experience Education Industrial Technology See Cooperative Work Experience Education.

## Insurance

1 Principles of Property and Liability Insurance (3) May be offered as Insurance 99.
This course presents basic information concerning various aspects of Property and Liability Insurance. First segment of the course covers fundamentals of insurance including: types of insurers, institutions that provide insurance, regulations, and measurements of financial performance. Second segment includes insurance operations, such as marketing, underwriting, and claims. Final segment covers insurance contracts, loss exposure, and risk management.

## International Business

## 1 International Trade (3) CSU

Lecture 3 hours.
This course gives a comprehensive overview of international business including basic trade theory, international marketing, export/import financing, the foreign currency markets, the operation and management of multinational firms, and the cultural aspects of global trade. It emphasizes the practical application of basic international trade topics.

## 6 International Marketing I (3) CSU

Lecture 3 hours.
This course presents the challenges of marketing consumer and industrial products in the global marketplace and the most effective approaches to these challenges. It explores the top potential exports for different countries and the most promising markets through the use of current market data and actual case studies of international marketing companies.

## 18 Basics of Exporting (1)

Lecture 1 hour.
This course is designed to provide the student with the basic information needed for an understanding of the export process. The course reviews the most important U.S. Government export regulations and gives the student an overview of export documentation and terminology.

19 Basics of Importing (1)
Lecture 1 hour.
This course is designed to give the student a solid understanding of the import process, including import documentation, and U.S. Government customs regulations. The course guides the student through the process of creating a basic import business plan.

22 International Management (3)
Lecture 3 hours.
An introduction to international management principles with an overview of global and multinational organizations. This course covers the issues of international human resource, operational topics, marketing decisions, strategic planning, and cross-cultural issues.

## Italian

## 1 Elementary Italian I (5) UC:CSU (CAN ITAL 2)

Lecture 5 hours.
Recommended: Eligibility for English 28.
Note: Students with previous knowledge of Italian should not enroll in Italian 1 or 2, but in a higher level. Native speakers should enroll in Italian 3, 4, 5, or 6. Introduces the fundamentals of pronunciation and grammar, practical vocabulary and useful phrases. Emphasizes the ability to understand, speak, read and write in simple Italian. Exposes the student to the culture of Italy. English is used whenever it is necessary to explain difficult grammatical concept. Otherwise the class is conducted in Italian. It corresponds to the first year of High School Italian.

2 Elementary Italian II (5) UC:CSU (CAN ITAL 4) (ITALIAN 1+2=CAN ITAL SEO A)
Lecture 5 hours.
Prerequisite: Italian 1 or one year of high school Italian, with a grade of " $C$ " or better.
Recommended: Eligibility for English 28.
Note: Students with previous knowledge of Italian should not enroll in Italian
1 or 2, but in a higher level. Native speakers should enroll in Italian 3, 4, 5, or 6.
Continues the study of basic Italian conversation using practical vocabulary and regular and irregular verbs in the present and past tenses. Stresses oral and written communication. Reading and writing for comprehension incorporate information about the culture and customs of Italy. It corresponds to the second year of High School Italian.

3 Intermediate Italian I (5) UC:CSU (CAN ITAL 8)
Lecture 5 hours.
Prerequisite: Italian 2 or two years of high school Italian with a grade of " $C$ " or better.
Recommended: Eligibility for English 28.
Note: Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.
Normally offered in the Fall semester only.
Reviews the grammatical structures studied in Italian 1,2 and continues the grammar necessary for communication and comprehension of both spoken and written Italian. Promotes fluency by immersing the student in practical situations which require extensive use of the language. Continues the study of Italian culture, life and civilization. Provides special attention to representative Italian literature. Corresponds to the first three years of High School Italian.

4 Intermediate Italian II (5) UC:CSU (CAN ITAL 10) (ITALIAN 3+4=CAN ITAL SEO B)
Lecture 5 hours.
Prerequisite: Italian 3 or three years of high school Italian with a grade of "C" or better.
Note: Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.
Normally offered in the Spring semester only.
Expands the structural concepts studied in Italian 1, 2 and 3. Develops additional vocabulary and related skills for maximum comprehension and expression. Provides greater depth in Italian literature with wider range of reading. Emphasizes discussion and analysis of the material. Continues the study of Italian culture and civilization.

5 Advanced Italian I (5) UC:CSU
Lecture 5 hours.
Prerequisite: Italian 4 with a grade of " $C$ " or better.
Note: Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.
Normally offered in the Spring semester only
Introduces some of the important movements in Italian literature. It includes reading prose and poetry from representative Italian authors and continues the study of advanced composition and grammar.

6 Advanced Italian II (5) UC:CSU
Lecture 5 hours.
Prerequisite: Italian 5 with a grade of " $C$ " or better.
Note: Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.
Normally offered in the Spring semester only.
Concerns works of Italian literature selected by students and instructor on the basis of relevance, interest and historical impact. Emphasis is on individual study and research shared in the form of reports both oral and written. This serves as a basis for the study of advanced composition, grammar and style.

8 Conversational Italian (2) CSU - RPT 3
Lecture 2 hours.
Prerequisite: Italian 2 or equivalent with a grade of "C" or better. This course is offered as a credit/no credit course only.
Provides opportunities for practical conversation on everyday topics, current events, and cultural material, and for expansion of vocabulary according to student interest.

10 Italian Civilization and Culture (3) UC:CSU
Lecture 3 hours.
Study of the civilization of Italy from the origins to the present. Conducted in English. Designed as a humanities course for all college students, especially those interested in arts, literature, architecture, music, politics, history and philosophy.

185 Directed Study - Italian (1) †UC:CSU - RPT 2
285 Directed Study - Italian (2) †UC:CSU
385 Directed Study - Italian (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Italian on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Japanese

1 Elementary Japanese I (5) UC:CSU (CAN JAPN 2)
Lecture 5 hours.
Recommended: Eligibility for English 28.
Note: Students with previous knowledge of Japanese should not enroll in Japanese 1 or 2, but in a higher level Native speakers should enroll in Japanese 3 or 4.
Stresses the fundamentals of aural comprehension and pronunciation, basic vocabulary, useful phrases and the ability to speak, read and write simple Japanese. Includes basic facts on customs, culture and geography.

2 Elementary Japanese II (5) UC:CSU (CAN JAPN 4) (JAPANESE 1+2=CAN JAPN SEO A)
Lecture 5 hours.
Prerequisite: Japanese 1 with a grade of "C" or better
Recommended: Eligibility for English 28.
Note: Students with previous knowledge of Japanese should not enroll in Japanese 1 or 2, but in a higher level Native speakers should enroll in Japanese 3 or 4 .
Continues the study of fundamentals of aural comprehension, basic vocabulary and the ability to speak, read and write simple Japanese. Includes orientation to customs, culture and geography.

3 Intermediate Japanese I (5) UC:CSU
Lecture 5 hours.
Prerequisite: Japanese 2.
Normally offered in the Fall semester only
Continues the study of grammar and vocabulary building for conversational fluency and written composition. Begins the study of short narrative writings.

4 Intermediate Japanese II (5) UC:CSU
Lecture 5 hours.
Prerequisite: Japanese 3.
Normally offered in the Fall semester only.
Continues the study of grammar and vocabulary building for conversational fluency and written composition. Continues the study of short narrative writings. Includes the study of Japanese culture.

8 Elementary Conversational Japanese (2) CSU RPT 3
Lecture 2 hours.
Prerequisite: Japanese 1 with a grade of " $C$ " or better.
Provides opportunity for oral communication in everyday settings about current events, general cultural materials and individual personal interests.

27 Cultural Awareness Through Advanced Conversation (3) UC:CSU
Lecture 3 hours
Prerequisite: Japanese 3
Develops oral facility and cultural awareness, emphasizing speaking and understanding Japanese in everyday situations common to life in Japan. Good grasp of grammar is a prerequisite. Prepares student to work in Japanese company or related business, or to live in Japan.

## 185 Directed Study - Japanese (1) $\dagger$ UC:CSU RPT 3

285 Directed Study - Japanese (2) †UC:CSU
385 Directed Study - Japanese (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Japanese on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Journalism

100 Social Values in Mass Communication (3) UC:CSU (CAN JOUR 4)
Lecture 3 hours.
May be offered as an honors section.
A general interest survey and evaluation of the mass media in economic, historical, political, psychological and social terms. Focus is to help the media consumer better understand today's mass communications: newspapers, radio, television, motion pictures, magazines, advertising and public relations. Course content discusses relationships, ethics, rights and responsibilities of media in today's society.

101 Collecting and Writing News (3) CSU (CAN JOUR 2)
Lecture 3 hours.
Recommended: Concurrent enrollment in Journalism 100 for all journalism majors.
Stresses instruction and practice in news gathering with particular emphasis on documentation, research and news writing. Adherence to professional writing style; legal and ethical aspects of the profession is included. Required of all journalism majors.

106 Mechanics of Expression (3) CSU
Lecture 3 hours.
Provides thorough instruction in grammar, punctuation, capitalization and word usage. Concentrates on critical analysis and application of the interaction and relationship to each other of words, phrases and clauses in the correct and effective expression and transference of thoughts in written English.

## 108 Article Writing (3) CSU

Lecture 3 hours.
Offers instruction in the writing of material for a magazine, including articles, editorials and reviews suitable for publication; includes practice in editing and the use of illustrative materials.

202 Advanced Newswriting (3) CSU
Lecture 3 hours.
Prevequisite: Journalism 101 with a grade of " $C$ " or better
Recommended: Concurrent enrollment in Journalism 217 for journalism majors.
Provides the student with principles and practice in writing specialized types of newspaper stories and increases mastery of fundamental reporting techniques. Interpretative writing skills, editorial writing, and feature writing are included. Required of all journalism majors.

217 Publication Laboratory (2) CSU RPT 3
Laboratory 6 hours.
Prerequisite: Journalism 101 with a grade " $C$ " or better; concurrent enrollment in journalism 202 or 218 or Photography 21.
Stresses constructive criticism of students in writing style and news evaluation. Publication production plans are developed. The instruction is directed by newspaper adviser, editor and staff members.

## 218 Practical Editing (3) CSU RPT 3

Lecture 1 hour; supervised activity 6 hours.
Prerequisite: Journalism 202 with a grade of " $C$ " or better.
Recommended: Prior or concurrent enrollment in Journalism 216 for Journalism majors.
Provides practical instruction and practice in writing and editing the campus newspaper. Editions are evaluated in regularly scheduled class meetings.

219 Techniques for Staff Editors (1) CSU RPT 2
Laboratory 3 hours.
Prerequisite: Journalism 101 with a grade of "C" or better and concurrent enrollment in Journalism 202 or 218 or Photography 21.
Offers instruction for campus newspaper editors in editorial writing and analysis of editorial problems. Emphasis is placed on formulating editoria policy.

220 Magazine Editing (3) CSU - RPT 3
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: Journalism 101 with a grade of ' $C$ ' or better and concurrent enrollment in Journalism 202 or 218, or Photography 20 or 21.
Presents the theory of writing and editing a magazine. Artistic design, principles of harmony and unity, and creativity in layout are stressed. Writing and editing of copy, designing pages, selecting photographs and other illustrations and design materials, preparing them for production; arranging production schedules; and other aspects of publishing are included.

## 221 News Photography (4) CSU RPT 3

Lecture 2 hours; Laboratory 6 hours.
Same as Photography 21. Credit not given for both courses.
Prerequisite: Photography 20 with a grade of " $C$ " or better.
Gives practical experience in the taking and processing of news and feature pictures, emphasizing the use of cameras normally employed in photojournalism. Affords students the opportunity to take, develop, and print pictures for the college newspaper and magazine.

185 Directed Study - Journalism (1) CSU - RPT 2
285 Directed Study - Journalism (2) CSU
385 Directed Study - Journalism (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Journalism on a contract basis under the direction of a supervising instructor.

## 911-94

Cooperative Work Experience Education - Journalism
See Cooperative Work Experience Education

## Law

## For additional law courses, see Administration of Justice and Business Administration.

## 3 Civil Rights and the Law (3) UC:CSU

Lecture 3 hours.
The course offers a comparative and analytical study of Civil Rights Law and related subjects based upon the United States Constitution and decisions of the United States Supreme Court. Students will have an opportunity to participate in class discussion of civil rights issues currently affecting their lives everyday. Topics included in the course are Due Process of Law, Freedom of Expression, Association, Press, Religion; Right of Privacy; Equal Protection; Search and Seizure; Miranda Rights; Right to a Fair Trial; Death Penalty; and Structure of the Legal System.

## Learning <br> Foundations

See also Learning Skills and Special Education
22 Learning Strategies (1) (NDA)
Lecture 1 hour.
Replaces Special Education 1
Designed for students with verified disabilities, this course provides information about each student's individual learning disabilities and how to compensate for their related learning problems. The course will develop and practice techniques to enhance academic achievement appropriate for specific learning disabilities.

30 Study Strategies (2) (NDA) - RPT 2
Lecture 2 hours.
Designed for students with verified disabilities, this course will develop and implement effective study strategies. Topics will include: time management, note taking, textbook reading strategies, test taking, coping with test anxiety, improving active listening skills, and goal setting. In addition, student will identify their personal learning strengths and how to apply them.

43 Reading Comprehension II (3) (NDA) - RPT 3
Lecture 3 hours.
Replaces Special Education 2.
Designed for students with verified disabilities, this course will focus on reading and understanding sentences, paragraphs, and extended passages from diverse sources. Students will also learn to paraphrase and will develop new vocabulary.

50 Computer Assisted Vocabulary Development (1) (NDA) - RPT 2 Laboratory 2 hours.
Designed for students with verified disabilities, this course uses a special computer program that individualizes instruction and provides
opportunities for learning, review, and testing of vocabulary words in all three learning modalities (visual, auditory, tactile). Open to students of all ranges of vocabulary knowledge. Students may take this course up to three times and learn different words each time.

56 Computer Assisted Spelling Development (1) (NDA) - RPT 2 Laboratory 2 hours.
Designed for students with verified disabilities, this course uses a special computer program that individualizes instruction and provides opportunities for learning, review, and testing spelling words and spelling rules in all three learning modalities (visual, auditory, tactile). Students may take this course up to three times and learn different words each time.

60 Computer Assisted Beginning Writing Skills (3) (NDA) - RPT 2 Laboratory 3 hours.
Designed for students with verified disabilities, this course uses special computer programs that teach and practice sentence writing, proof reading, and short paragraph writing. This course involves the use of sentence patterns and verb forms. Students may take this course up to three times and do more advanced work each time.

61 Computer Assisted Intermediate Writing Skills (3) (NDA) - RPT 2 Laboratory 3 hours.
Designed for students with verified disabilities, this course uses special computer programs that teach and practice intermediate sentence writing and short essay writing. This course involves the use of more advanced sentence patterns and verb forms than Learning Skills 60 . Students may take this course up to three times and do more advanced work each time

## Learning Skills

1 Reading (3) (NDA) - RPT 3
Lecture 2 hours; Laboratory 2 hours with homework.
Individualized, self-paced reading remediation for ESL students and/or native speakers. Program ranges from learning to read to improving comprehension and interpretation. Tutors and computer programs supplement learning.

2 English Fundamentals (3) (NDA) - RPT 3
Lecture 2 hours; Laboratory 2 hours with homework.
Recommended: Concurrent enrollment in Learning Skills 7.
Individualized, self-paced work on punctuation, sentence structure and correctness, supplemented by computer-assisted instruction.

3 Vocabulary (3) (NDA) - RPT 3
Lecture 5 hours.
This class teaches strategies to learn vocabulary in the context of language use. Acquisition techniques such as context clues, phonology, word morphology, syntax, word forms, semantic categories, dictionary and thesaurus use, and comprehesion skills will be covered for success in college/vocational coursework.

7 Basic Composition (3) (NDA)
Lecture 2 hours; Laboratory 2 hours with homework.
Small group workshop ( $4-10$ people) in all types of writing, from journal to research paper. ESL and native-speaking students participate in exercises, writings, peer response, as well as work individually at their own pace. Tutors, computer programs supplement workshop activities. Preparation for English 84-87 or English 21.

10 Mathematics Fundamentals (3) (NDA) - RPT 3 Laboratory 5 hours.
Individualized, self-paced instruction in math from whole number operations to algebra and geometry. Tutorial and computerized math programs provide review, remediation and/or practice.

## Library Science

102 Internet Research Methods (1) CSU
Lecture 1 hour, Laboratory 1.5 hours per week.
Recommended: Knowledge of Windows 6, Basic keyboarding skills.
This course focuses on how to find and evaluate information and resource materials on the Internet. Information access, search strategies, and specific search tools will be covered. Copyright, censorship, and intellectual property will be discussed.

## Life Science

Life Science courses are listed under the headings of:
Anatomy
Biology
Microbiology
Oceanography
Physiology

## Linguistics

1 Introduction to Language and Linguistics (3) UC:CSU
Lecture 3 hours.
Same as Anthropology 104. Credit not given for both courses.
Surveys the great variety of ways humans communicate both verbally and nonverbally. The course focuses on the structure, function, and history of language, with selections on the sociology and psychology of language, language learning, and the origins and evolution of language.

## Machine Shop

See course listings under Industrial Technology - Machine Shop/CNC.

## Management

## 2 Organization and Management Theory (3) CSU

## Lecture 3 hours.

This course provides students with an introduction to the management and organization of businesses. Provides students with an understanding of how the management of people and resources accomplishes organizational goals. Covers the basic concepts of leading, planning and control, organization design, operations management, decision making, human resource management, managing change, individual and group behavior, motivating and rewarding employees, communicating and interpersonal skills, work teams, ethics, leadership and trust.

6 Public Relations (3) CSU - RPT 1
Lecture 3 hours.
Covers essentials for organizing and operating a public relations program. Includes the study of relations with the community, customers, stockholders, news media, employees. Multicultural relations and PR writing are also covered.

## 13 Small Business Management I (3) CSU

Lecture 3 hours.
Presents a systematic approach to successful small business operation. Covers personnel evaluation, pre-ownership evaluation, management and leadership, financing, location, taxation, records, employees, purchasing, advertising, sales, and credit. Emphasizes the development of a business plan.

31 Human Relations for Employees (3) CSU
Lecture 3 hours.
This course covers the practical application of psychological and sociological principles to the study of human relations in business and industry. The course emphasizes case studies and teamwork. Topics covered include communication styles, self-esteem, ethics, attitude and motivation, self-disclosure, emotional balance, leadership strategies, work force diversity, and professional presence.

33 Personnel Management (3) CSU
Lecture 3 hours.
Consists of a critical examination of the principles, methods, and procedures related to the effective utilization of human resources in organizations. Includes the management of employment recruiting, testing, selection and placement; job evaluation; wage and salary administration; labor relations and communication; performance evaluation; promotion and transfer; accident prevention; labor law and legislation; benefits and services; discipline, motivation and morale.

## Cooperative Work Experience Education - Business

See Cooperative Work Experience Education.

## Marketing

## 1 Principles of Selling (3) CSU

Lecture 3 hours.
This course emphasizes the principles used in persuasive communication. Consumer buying behavior, presentations, and closing are covered. The course is designed to help students currently involved in sales as well as those seeking to improve their communication skills. Sales presentations, videotapes and case studies are used.

## 11 Fundamentals of Advertising (3) CSU

Lecture 3 hours.
This course introduces the student to the role of advertising in our economy. It gives a comprehensive overview of the planning and managing of advertising. The course also covers how the major forms of media, such as television, radio, newspapers, magazines, the internet are integrated into the advertising campaign.

## 21 Principles of Marketing (3) CSU

Lecture 3 hours.
This course introduces students to various activities in the field of marketing It provides an understanding of the principles involved in the distribution of a product from the producer to the user or consumer. It covers the consumer market, consumerism, packing and branding, pricing, wholesaling, retailing, sales promotion, personal selling and international marketing.

## 31 Retail Merchandising (3) CSU

Lecture 3 hours.
Offered Fall semesters only.
Covers the retail operation in total including a study of store location, store layout, store organization, merchandise buying, pricing, stock planning and retail sales promotion. Personnel duties and responsibilities are also studied including the work of the department manager, store buyer, merchandise manager, publicity director, store superintendent, and the store comptroller.

## Cooperative Work Experience Education - Business

See Cooperative Work Experience Education.

## Mathematics

## MATHEMATICS PLACEMENT PROCESS:

All students who have not completed a college mathematics course must complete the Mathematics Placement Process at the Pierce College Assessment Center (Campus Center). Contact the Assessment Center at (818) 719-6499 for an appointment and sample tests. Review is essential because the test cannot be taken again for six months.
Placement tests are given at four levels: Algebra Readiness, Elementary Algebra, Intermediate Algebra, and Precalculus. Upon completing the process, students are advised of their recommended placement and given an authorization to enroll in that course. Students seeking authorization to enroll in a course other than that recommended by the assessment process must obtain enrollment authorization from a Mathematics Department advisor, if they have satisfied the prerequisite.
Mathematics Laboratory
Open to any regularly enrolled student in Pierce College. Mathematics tutoring is located in The Learning Center in room TLC 1613 (enter through room TLC 1604), 9 am. - 8 p.m., Monday - Thursday, and 9 a.m. - 2 p.m., Friday. Additional Mathematics tutoring is available in room COSC 1512 (Mathematics computer classroom). Call 818-719-6468 for times.

105 Arithmetic for College Students (3) (NDA)
Lecture 3 hours.
Reviews the arithmetic essential in college and business. Topics include fractions, decimals, percent, and measurement. The course emphasizes problem-solving techniques that are useful in practical situations.

## 110 Introduction to Algebraic Concepts (5) (NDA)

Lecture 5 hours.
Discusses abstract ideas necessary to understanding algebra and reviews selected topics of arithmetic relevant to algebra. Introduces fundamental notions of algebra including signed numbers, simple equations, and modeling. Includes hands-on laboratories and group work instruction in study skills.

## 112 Pre-Algebra (3) (NDA)

Lecture 3 hours
Discusses abstract ideas necessary for understanding algebra and reviews selected topics in arithmetic relevant to algebra. Introduces fundamental notions of algebra including signed numbers, simple equations, and modeling.

## 115 Elementary Algebra (5)

Lecture 5 hours.
Prerequisite: A grade of " $C$ " or better in Mathematics 110 or 112, or appropriate skill level demonstrated through the Mathematics placement process. Includes operations with algebraic expressions, solutions of linear equations and inequalities, systems of linear equations, quadratic equations, graphs of lines and simple parabolas. No credit given for students who have completed Mathematics 116.

## 120 Plane Geometry (5)

Lecture 5 hours.
Prerequisite: Mathematics $115^{* * *}$ or appropriate skill level demonstrated through the Mathematics placement process, and equivalent high school preparation.
Covers an introduction to logic and the construction of a formal proof, the study of plane figures such as triangles, parallelograms and other polygons, and circles. Construction methods with compass and straight edge; computations for perimeter, area and volume.

125 Intermediate Algebra (5)
Lecture 5 hours.
Prerequisite: Mathematics $115^{* * *}$ with a grade of "C" or better, or appropriate skill level demonstrated through the Mathematics placement process and equivalent high school preparation.
Note: Credit given for either Mathematics 125 or 126, but not both.
Linear equations and inequalities, systems of linear equations and Gaussian elimination, quadratic equations, polynomials and rational expressions, exponents and radicals. Functions and their graphs, including linear, quadratic and exponential functions; logarithms, polynomials and algebraic fractions. Modeling and problem solving. Sequences, conic sections, and complex numbers.

145 Technical Mathematics I (3)
Lecture 3 hours.
Prerequisite: Mathematics 105
Provides an introduction to the practical application of mathematics as needed in industry. Fractions, decimals, percentage, square and square roots, constants, solids, etc. are reviewed. Emphasis is on the solution of technical problems beneficial to those engaged in an industrial trade.

146 Technical Mathematics II (3)
Lecture 3 hours.
Reviews algebraic operations beginning with the relationship of arithmetic to algebra and solutions of technical math problems using elementary algebra. Introduction to and study of fundamentals of plane geometry, right and oblique triangle trigonometry as related to practical industrial problems.

215 Principles of Mathematics I (3) UC:CSU (CAN MATH 4) (for Prospective Elementary School Teachers)
Lecture 3 hours.
Prerequisite: Mathematics 120 and either 125 or $126^{* * *}$ with grades of " $C$ " or better, or equivalent high school preparation and appropriate skill level demonstrated through the Mathematics placement process.
Includes problem solving, functions, systems of numeration and number concepts; whole numbers, integers, rational and real numbers, together with their algorithms; use of manipulatives; techniques/strategies employed by children to accomplish arithmetic tasks. For propective elementary or junior high school teachers.

227 Statistics (4) UC:CSU (CAN STAT 2)
Lecture 4 hours.
Prerequisite: Mathematics 125 or $126^{* * *}$ with a grade of " $C$ " or better, or equivalent high school preparation and appropriate skill level demonstrated through the Mathematics placement process.
UC Credit Limit: Credit not given for both Statistics 1 and Mathematics 227
Discusses averages, variability, graphical techniques, probability hypothesis testing, sampling, estimation, correlation, prediction, and linear regression. Emphasis is on the collection and analysis of data and how inferences about a population are made from a sample.

235 Finite Math (5) CSU
Lecture 5 hours.
*UC transferability pending approval.
Prerequisite: Mathematics 125 .
This course covers topics of finite mathematics, including solving systems of linear equations, operations on matrices, and linear programming with the simplex method. In addition, the course covers the mathematics of finance, combinatorics, probability and statistics. Optional topics may include set theory, logic, and game theory.

238 Calculus for Business and Social Science I (5) *UC:CSU
Lecture 5 hours.
Prerequisite: Mathematics 125 or $126^{* * *}$ with a grade of " $C$ " or better, or equivalent high school preparation and appropriate skill level demonstrated through the Mathematics placement process.
Recommended Preparation: Mathematics 245.
An introduction to the study of calculus of one variable, differentiation and integration of algebraic and exponential functions, application of differential calculus to modeling and curve sketching, use of integral calculus to determine areas between curves, techniques of integration. Topics of finite mathematics including compound interest and annuities.

## 240 Trigonometry (3) CSU (CAN MATH 8)

Lecture 3 hours.
Prerequisite: Mathematics 120 and either 125 or $126^{* * *}$ with grades of " $C$ " or better, or equivalent high school preparation and appropriate skill level demonstrated through the Mathematics placement process.
Centers on a study of the six trigonometric functions, including a study of their graphs, inverses of the functions, solution of triangles, models for periodic phenomena, identities, conditional equations, and polar coordinates.

245 College Algebra (3) **UC:CSU (CAN MATH 10)
Lecture 3 hours.
Prerequisite: Mathematics 120 and either 125 or $126^{* * *}$ with grades of " $C$ " or better, or equivalent high school preparation and appropriate skill level demonstrated through the Mathematics placement process.
Discusses relations, functions and their graphs, matrices and determinants, theory of equations, permutations, combinations, probability, and conic sections.

260 Pre-calculus (5) **UC:CSU (CAN MATH 16)
Lecture 5 hours.
Prerequisite: Mathematics $240{ }^{* * *}$ with a grade of " $C$ " or better or equivalent high school preparation and appropriate skill level demonstrated through the Mathematics placement process.
UC Credit Limit: Maximum 4 units.
Develops properties of the elementary functions, including exponential, logarithmic and trigonometric functions. Graphing is stressed. Elements of analytic geometry, including conic sections and sequences and series are developed.

261 Calculus I (5) UC:CSU (CAN MATH 18)
Lecture 5 hours.
Prerequisite: Mathematics $260^{* * *}$ with a grade of " $C$ " or better, or equivalent high school preparation and appropriate skill level demonstrated through the Mathematics placement process.
Begins a sequence of three courses in calculus. Coverage includes limits, continuity, differentiation and some integration of algebraic and transcendental functions. Applications of the calculus include related rates, maxima and minima of functions of one variable, calculation of areas, volumes, arc length and growth.

262 Calculus II (5) UC:CSU (CAN MATH 20) (MATH 261+262=CAN MATH SEO B)
Lecture 5 hours.
Prerequisite: Mathematics $261^{* * *}$ with a grade of "C" or better, or a score of 3 or higher on the high school Advanced Placement Calculus AB Test.
Continues the study of calculus begun in Mathematics 261 with attention given to techniques and applications of integration as well as functions expressed in polar and parametric forms. Infinite series and expansion of functions into series and introduction to differential equations complete the course.

263 Calculus III (5) UC:CSU (CAN MATH 22)
(MATH 261+262+263=CAN MATH SEO C)
Lecture 5 bours.
Prerequisite: Mathematics $262^{* * *}$ with a grade of "C" or better, or a score of 3 or more on the high school Advanced Placement Calculus BC Test.
Concludes the study of calculus begun in Mathematics 261. The concepts of the derivative and the definite integral are extended to functions of several variables in the form of partial derivatives and multiple integrals. In addition, the theory of limits, derivatives, and integrals are extended to vector-valued functions. Topics in vector calculus such as vector fields, line integrals, divergence and curl, Green's, Stokes', and the Divergence theorems are treated.

270 Linear Algebra (3) UC:CSU (CAN MATH 26)
Lecture 3 hours.
Prerequisite: Mathematics $262^{* * *}$ with a grade of " $C$ " or better Mathematics 263 is strongly recommended
Covers vector spaces, linear transformations and matrices, matrix algebra, determinants, solutions of systems of equations, eigenvectors and eigenvalues.

275 Ordinary Differential Equations (3) UC:CSU (CAN MATH 24) Lecture 3 hours.
Prerequisite: Mathematics 263 with a grade of " $C$ " or better
Includes an introduction to first, second and higher order linear differential equations, operator methods, series solutions, the gamma function, Laplace transform techniques, Boundary value problems, and numerical methods with an emphasis on applications.

Directed Study - Mathematics (1) †UC:CSU - RPT 2
285 Directed Study - Mathematics (2) $\dagger$ UC:CSU
385 Directed Study - Mathematics (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Mathematics on a contract basis under the direction of a supervising instructor.
*UC Credit Limit: Mathematics 238 combined with Mathematics 261 and 262, maximum 2 courses.
**UC Credit Limit: Mathematics 245 combined with Mathematics 260, maximum 4 units.
***Or the equivalent course at an accredited college or university.
UC Credit Limit: Mathematics 227, Statistics 1 and 7, maximum one course.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Media Arts

Media Arts courses are listed separately under the following headings:

Broadcasting
Cinema
Journalism
Photography
Public Relations

## Meteorology

3 Introduction to Weather and Climate (3) UC:CSU
Lecture 3 hours.
Same as Geography 3. Credit not given for both courses.
Studies the earth's atmospheric environment using an Earth Systems Science approach. Emphasis is given to Earth-sun relationships, solar radiation inputs, earth radiation emission and temperature, global warming, atmospheric moisture measurements, adiabatic processes, clouds and precipitation formation, atmospheric pressure and wind flow, storm development, weather forecasting, and climate and climate change. Tools used for inquiry may include weather maps, satellite imagery, and geographic information systems.

185 Directed Study - Meteorology (1) †UC:CSU - RPT 2
285 Directed Study - Meteorology (2) †UC:CSU

385 Directed Study - Meteorology (3) †UC:CSU
Conference 1 hour per unit.
Prerequisite: Geography 3 or Meteorology 3.
Allows students to pursue Directed Study in Meteorology on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Microbiology

1 Introductory Microbiology (5) *UC:CSU (CAN BIOL 14)
Lecture 3 hours; Laboratory 6 hours.
Note: $A$ total of 5 units given for Microbiology 1 and 20. Prerequisite: Biology 3, 6 or 44 and Chemistry 51 or Physiology 1 or 8 or equivalent with a grade of "C" or better.
Major emphasis is on the nature of bacteria-their morphology, metabolism, genetics, growth and methods of controlling their populations, their aptitude in causing infectious diseases, and hostpathogen relationships. Other topics include free living and pathogenic fungi, protozoa, the helminthes (worms) and the diseases they cause, the fundamentals of virology and immunology, bioterrorism, and potential infectious agents of bioterrorism. Laboratory techniques emphasize microscopy, aseptic techniques in cultivation, isolation, staining, enumeration, control, and identification of bacteria. Students explore microbes in soil, air, water, and food with particular emphasis on medical microbiology and the major etiological agents of disease, as well as an introduction to biotechnology.

20 Introductory Microbiology (4) *UC:CSU
Lecture 3 hours; Laboratory 3 hours.
Note: A total of 5 units given for Microbiology 1 and 20.
Prerequisite: Biology 3, 6 or 44 and Chemistry 51 or Physiology 1 or 8 or equivalent with a grade of "C" or better.
Mirco 20 is primarily the study of bacteria-their history, morphology, metabolism, genetics, growth, methods for control and most importantly, their role in infectious diseases, host-pathogen interactions, and as potential agents of bioterrorism. Other major topics covered are virology and immunology. The lab introduces skills in microscopy, and aseptic techniques in the handling, isolation, cultivation, staining, identification, genetic manipulation, and control of bacterial populations.
*UC Credit Limit: Combined Microbiology 1 and 20, maximum one course.

## Modern Languages

Modern Language courses are listed separately under the following headings: American Sign Language French Italian
Japanese
Spanish

## Multimedia

100 Introduction to Multimedia Computer Applications (3) CSU RPT 3
Lecture 2 hours; Laboratory 2 hours.
This course develops skills necessary to digitally manipulate graphic images and text in industry standard multimedia computer applications Emphasis is placed on mastering basic computer skills while applying design principles to finished projects. The course will also introduce the principles of digital video editing.

110 Visual Communication (3) CSU - RPT 3
Lecture 2 hours; Laboratory 2 hours.
This is a fundamental course on the nature of visual communication. Emphasis is placed on historical, philosophical, theoretical, cultural and practical aspects of art, design and Multimedia.

200 Digital Imaging (3)
Lecture 2 hours; Laboratory 2 hours.
Note: Computer application for this class is Adobe Photoshop.
Prerequisite: Art 604.
This is a fundamental course in digital imaging. Emphasis is placed on techniques used in computer manipulation of photographs, digital capture, color theory, lighting, the printing process and presentation.

210 Digital Editing (3) CSU - RPT 3
Lecture 2 hours; Laboratory 2 hours.
This course introduces students to computer applications for the digital editing of video and sound. Emphasis is placed on non-linear post production tools.

230 Visual Communication for Multimedia (3) CSU
Lecture 2 hours; Laboratory 2 hours.
This course examines visual communication as it is affected by recent trends in multimedia. Emphasis is placed on creating original scripts and multimedia projects that reflect a wide variety of cultural contexts.

340 Vector Graphics (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Note: Computer applications coverd in this class are Adobe Illustrator and Macromedia Flash.
This is a course in vector graphics for multimedia, using multimedia computer applications to produce full-color vector illustrations. Students will examine the role of vector graphics in various multimedia applications, such as game design and animation.

## Music

Check with the Music Department or Counseling Office for transferability of courses to four-year institutions, and for unit limitations of courses accepted by both University of California and CSUN. All Music Majors are required to enroll in a performing ensemble each semester (Music 501, 531, 721, 741, 745). Performance classes study different literature each semester, and musical growth is in no sense completed in a single semester. For these reasons it is educationally sound for a student to repeat a music performance course.

## 101 Fundamentals of Music (3) UC:CSU

Lecture 3 hours.
This course presents basic information about music and music performance, including the rudiments of music notation, scales, key relationships, intervals, chord construction and common musical terms. Also, beginning levels of ear training, sight singing and keyboard techniques are introduced.

## 111 Music Appreciation I (3) UC:CSU

Lecture 3 hours.
Provides a survey of music by considering the development of musical ideas and their relationship to cultural life from the Middle Ages to the present. Music listening skills are developed through lectures, listening activities, and concert attendance.

## 112 Music Appreciation II (3) UC:CSU

Lecture 3 hours.
Prerequisite: Music 111.
Offers a continuation of Music 111, stressing the forms and styles of music common to the various historical periods.

121 Music History and Literature I (3) UC:CSU
Lecture 3 hours.
Note: Students should have some familiarity with 18 th century harmonic practice. Offered Fall semesters.
Traces the history and development of musical thought from ancient Greece through 1750. Emphasizes extensive listening through recordings and concerts. Designed primarily for music majors and those with considerable musical background.

122 Music History and Literature II (3) UC:CSU
Lecture 3 hours.
Note: Students should have some familiarity with 18 th century harmonic practice. Offered Spring semesters.
Studies styles and forms beginning with the great classical composers and concluding with the music of the present day. Designed primarily for music majors and those with some musical background.

152 Current Musical Events (1) CSU - RPT 3
Laboratory 2 hours. Attendance at local concerts required
Concurrent enrollment in Music 111 is recommended
Students attend on campus concerts presented by faculty, student, and guest artists. These concerts present a wide variety of musical styles which serve to enrich the student's appreciation of music.

161 Introduction to Electronic Music (3) CSU
Lecture 2 hours; Laboratory 2 hours.
This course provides instruction in the use of synthesizers, Musical Instrument Digital Interface (MIDI), computers, musical acoustics, sound design, and music software. Emphasis is placed on technical,
compositional, and performance skills utilizing digital synthesizers in conjunction with computers and music software.

## 165 Introduction to Recording Arts (3) CSU

Lecture 2 hours; Laboratory 2 hours.
An introduction to the theory and practice of audio recording. Topics include: the nature of sound; basic acoustics; analog and digital audio recording systems; terminology; microphone principals and usage; recording styles; multitrack recording procedures.

## 181 Applied Music I (.5) UC:CSU

Lecture 1 hour
Corequisite: Concurrent enrollment in a harmony class (Music 201, 202, 203, 221 or 223).

Private and small group study of the performance techniques related to the students major instrument or voice

182 Applied Music II (.5) UC:CSU
Lecture 1 hour.
Prerequisite: Music 181.
Continuation of Music 181.

183 Applied Music III (.5) UC:CSU
Lecture 1 houn
Prerequisite: Music 182.
Continuation of Music 182.

184 Applied Music IV (.5) UC:CSU
Lecture 1 hour
Prerequisite: Music 183.
Continuation of Music 183.

200 Introduction to Music Theory (4) UC:CSU
Lecture 3 hours; Laboratory 2 hours.
This course prepares music majors to qualify for Music 201 and Music 211 It presents basic information about music and music performance, including the rudiments of music notation, scales, key relationships, intervals, chord construction and common musical terms. Also, beginning levels of ear training, sight singing and keyboard techniques are introduced.

201 Harmony I (3) UC:CSU
Lecture 3 hours.
Note: Students must be familiar with notation, scales, intervals keys and common musical terms. Concurrent enrollment in Music 211 and a major performing ensemble (Music 501, 531, 721, 741 or 745) is strongly recommended for music majors.
Concerns diatonic harmony which includes a study of triads and their inversions. Introduces nonchordal tones through harmonization of simple given parts. Includes harmonic analysis.

202 Harmony II (3) UC:CSU
Lecture 3 hours.
Prerequisite: Music 201 and 211.
Corequisite: Music 212 and 501, 531, 721, 741, or 745.
Continues Music 201, including a study of secondary triads, modulation, all forms of dominant harmony, and the sequence.

## 203 Harmony III (3) UC:CSU

Lecture 3 hours.
Prerequisite: Music 202 and 212
Corequisite: Music 213 and 501, 531, 721, 741, or 745.
Continues Music 202 and is primarily a study of nondominant seventh chords, the Neopolitan and augmented sixth chords and other chromatic harmonies.

## 211 Musicianship I (2) UC:CSU

Lecture-Performance 3 hours
Prerequisite: Music 101 or equivalent with a grade of " $C$ " or better.
Note: Students must be familiar with notation, scales, intervals, keys and common musical terms.
Development of sight reading, dictation and keyboard skills.

212 Musicianship II (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: Music 211 with a grade of " $C$ " or better.
Continuation of Music 211.

213 Musicianship III (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: Music 212 with a grade of " $C$ " or better.
Continuation of Music 212.

214 Musicianship IV (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: Music 213 with a grade of " $C$ " or better.
Continuation of Music 213.

221 Counterpoint I (3) UC:CSU
Lecture 3 hours.
Prerequisite: Music 201 and 211 with grades of "C" or better. Offered in the Fall semesters.
Covers two and three-part modal counterpoint based upon sixteenth century polyphony.

222 Counterpoint II (3) UC:CSU
Lecture 3 hours.
Prerequisite: Music 201 and 211 with grades of " $C$ " or better. Offered in the Spring semesters.
Covers two and three-part tonal counterpoint based upon the polyphony of the Baroque period.

223 20th Century Compositional Techniques (3) UC:CSU
Lecture 3 hours.
Prerequisite: Music 203.
Provides an opportunity for the gifted and creative student to experiment with new harmonic techniques of the 20th century. Includes an introduction to analytical techniques and principles of musical composition.

225 Basic Conducting (2) UC:CSU - RPT 2
Lecture-Performance 3 hours.
Note: Students must be familiar with musical notation.
Concerns the basic techniques for conducting both choral and instrumental musical ensembles. Explores various conducting responsibilities including rehearsal technique, beat patterns, cueing and expressive gestures.

226 Choral Conducting (2) CSU
Lecture-Performance 3 hours.
Note: Students must be familiar with musical notation.
Continues Music 225 and applies techniques to choral works suitable for school, church, and community choral groups.

231 Orchestration and Arranging I (3) UC:CSU
Lecture 3 hours.
Prerequisite: Music 201.
Presents the student with an introduction to the instruments of the orchestra and band and teaches how to score for them in various combinations.

232 Orchestration and Arranging II (3) UC:CSU Lecture 3 hours.
Prerequisite: Music 231.
Continuation of Music 231. Offers the student an opportunity to advance the techniques learned in Music 231.

250 Music Performance Workshop (.5) CSU - RPT 3
Lecture-Performance 3 hours.
Preparation and performance of musical selections. Lectures and discussions of various aspects of public performance.

251 Jazz Improvisation Workshop (.5) UC:CSU - RPT 3
Lecture-Performance 3 hours.
Note: Students must be able to play a jazz instrument or voice.
A student-directed environment for jazz and rock-style improvisation. The ensemble is determined by enrollment which differs every semester.

261 Electronic Music Workshop (3) CSU - RPT 2
Lecture 2 hours; Laboratory 2 hours.
Note: Students must be familiar with basic concepts of digital synthesis through computer and MIDI applications.
This course extends the electro-acoustic music techniques introduced in Music 161. As continuation of Music 161, the focus of this course is on the application of advanced electro-acoustic music equipment, software and techniques used in a contemporary music project studio. The production of music using advanced synthesis, computer applications, MIDI, signal processing and recording techniques will be stressed.

299 Music Honors (1) $\dagger$ UC:CSU - RPT 3
Laboratory 3 hours.
Prerequisite: Music 121, 122, and 203.
Provides the gifted student in music an opportunity for concentrated independent study in selected areas under the direct supervision of an instructor. Presents a course of study through a series of projects designed to increase the students' knowledge of those aspects of music most pertinent to their individual interests and talents.

301 Keyboard Harmony I (1) UC:CSU
Lecture 1 hour.
Prerequisite: Music 101 or equivalent.
Emphasis will be on work using both hands, on harmonizing anthemtype melodies and on using 3-note chords in the right hand with single bass notes in the left hand. The student will also perform florid melodies using single notes in the right hand with 3-note chords in the left hand.

302 Keyboard Harmony II (1) UC:CSU
Lecture 1 hour.
Prerequisite: Music 301 with a grade of " $C$ " or better, or equivalent.
This course is a continuation of student development of keyboard skills. Emphasis will be on left hand harmonic patterns such as Alberti bass, "waltz" bass, and two part (treble and bass) harmonizations. This level is to include secondary seventh chords (and inversions), secondary dominants (and inversions), as well as transient and real modulatory exercises.

303 Keyboard Harmony III (1) UC:CSU
Lecture 1 hour.
Prerequisite: Music 302 with a grade of " $C$ " or better, or equivalent.
This course is a continuation of student development of keyboard skills, using more complex piano idioms, harmonizations to include the augmented sixth chord family, the Neapolitan sixth, chromaticism, remote key movement and relationships, as well as some early 20th Century techniques, such as parallelism, chords in fourths, polytonal passages, etc.

321 Elementary Piano I (2) UC:CSU (CAN MUS 22)
Lecture-Performance 3 hours.
This course introduces the basic techniques and skills used to play the piano and electronic keyboard instruments. Also, music reading, scales and chord progressions are introduced along with the terminology and theory related to the music being studied.

322 Elementary Piano II (2) UC:CSU (CAN MUS 24)
Lecture-Performance 3 hours.
Note: Students must be able to perform simple major scales, melodies with basic chordal accompaniment and two-part pieces similar to those found in Bartok's Mikrokosmos, volume 1.
Continuation of Music 321.

323 Elementary Piano III (2) UC:CSU
Lecture-Performance 3 hours.
Note: Students must be able to perform two-octave major scales, simple melody, and accompaniment pieces such as those found in Music for Millions, Volume 17 and two-part pieces similar to those found in Bartok's Mikrokosmos, Volume 2.
Continuation of Music 322.

324 Elementary Piano IV (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: Music 323 with a grade of " $C$ " or better.
Continuation of Music 323.

341 Intermediate Piano (2) UC:CSU - RPT 3
Lecture-Performance 3 hours.
Prerequisite: Elementary Piano.
Continuation of Music 324. Introduces compositions stressing scales, chords, arpeggios and harmonic structure of music in an interpretive manner. Emphasizes style and interpretation.

351 Piano Ensemble (1) UC:CSU - RPT 3
Laboratory 2 hours.
Prerequisite: Music 341.
Provides the opportunity for ensemble experience through the performance of literature for two pianos, four and eight hands. Particular emphasis on style, interpretation and the development of sight reading.

411 Elementary Voice I (2) UC:CSU
Lecture-Performance 3 hours.
Concentrates on general, basic fundamentals of singing, using vocal exercises, and simple songs. Emphasis on developing an understanding of the singing voice, the body as a musical instrument, and the vocal potential of each student. Songs used implement and illustrate vocal growth and development.

## 412 Elementary Voice II (2) UC:CSU

Lecture-Performance 3 hours.
Note: Traditional voice students must be familiar with the basic fundamentals of singing and the art song styles. Pop voice students must be familiar with the fundamentals of singing and microphone technique.
Continuation of Music 411.

413 Elementary Voice III (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 412
414 Elementary Voice IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 413
441 Song Repertoire (2) UC:CSU - RPT 3
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Music 414.
Offers the voice student the opportunity to study and perform a varied repertoire selected from musicals, art songs and operas.

501 College Choir (.5) UC:CSU - RPT 3
Laboratory 3 hours.
Open to all students, regardless of vocal experience.
Experience the joy of singing! In this class you will learn basic singing techniques and music reading skills through the study, preparation and performance of standard choral literature and popular music.

531 Philharmonic Choir (.5) UC:CSU - RPT 3
Laboratory 3 hours.
Note: Some familiarity with choral repertoire and proper vocal technique is required.
Study and performance of choral literature from all stylistic periods, including popular music. Emphasis, however, is placed upon major choral works.

561 Chamber Chorale (.5) UC:CSU - RPT 3
Laboratory 3 hours.
Prerequisite: Audition.
Concerns the study and performance of musical literature of small chamber choral groups from the sixteenth century to the present.

571 Jazz Choir (.5) CSU - RPT 3
Lecture-Performance 4 hours.
Prerequisite: Audition.
This course offers practical experience in singing jazz, folk, and rock music in a small ensemble setting.

## 601 Brass Instrument Instruction I (2) UC:CSU

Lecture-Performance 3 hours.
Offers instruction in trumpet, trombone, tuba and French horn Recommended for students interested in learning to play a brass instrument, to write and arrange for brass instruments, or acquiring the skills to teach others to play these instruments.

602 Brass Instrument Instruction II (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 601.

603 Brass Instrument Instruction III (2) UC:CSU
Lecture-Performance 3 hours
Continuation of Music 602.

604 Brass Instrument Instruction IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 603

611 String Instrument Instruction I (2) UC:CSU Lecture-Performance 3 hours.
Offers instruction in violin, viola, cello and bass. Recommended for students interested in learning to play a string instrument, to write and arrange for string instruments, or acquiring the skills to teach others to play these instruments.

612 String Instrument Instruction II (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 611

613 String Instrument Instruction III (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 612.
614 String Instrument Instruction IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 613.
621 Woodwind Instrument Instruction I (2) UC:CSU
Lecture-Performance 3 hours.
Offers instruction in flute, oboe, clarinet, bassoon and saxophone. Recommended for students interested in learning to play a woodwind instrument, to write and arrange for woodwind instruments, or acquiring the skills to teach others to play these instruments.

622 Woodwind Instrument Instruction II (2) UC:CSU Lecture-Performance 3 hours.
Continuation of Music 621.
623 Woodwind Instrument Instruction III (2) UC:CSU Lecture-Performance 3 hours.
Continuation of Music 622.
624 Woodwind Instrument Instruction IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 623
650 Beginning Guitar (2) UC:CSU
Lecture-Performance 3 hours.
Concerns beginning guitar skills with emphasis on learning to read music on the guitar, up to the fifth fret for the left hand. Right hand technique will be finger, and pick oriented; and the course is a perfect introduction to either classical, commercial, or folk guitar playing.

651 Classical Guitar I (2) UC:CSU
Lecture-Performance 3 hours.
Note: Familiarity with music notation and basic guitar technique is required Provides basic instruction in Classical Guitar playing at the beginning level. Includes appropriate exercises to develop technical facility, material for sight-reading, study of basic chords, and repertoire.

652 Classical Guitar II (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 651.
653 Classical Guitar III (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 652.
654 Classical Guitar IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 653.

661 Commercial Guitar I (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Note: Familiarity with rudimentary chord symbols and basic guitar technique is required.
Designed to give the guitarist experience in playing melody, accompaniments, and performing songs with simultaneous chords and melody. Styles covered include jazz, jazz-fusion, rock and bossa-nova. Techniques include scales and sight reading up to the fifth position in keys up to three flats and three sharps.

662 Commercial Guitar II (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Music 661 or appropriate private instruction.
Note: Must possess own instrument.
Continuation of Music 661.

663 Commercial Guitar III (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Music 662 or appropriate private instruction.
Note: Must possess own instrument.
Continuation of Music 662.

664 Commercial Guitar IV (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Music 663 or appropriate private instruction.
Note: Must possess own instrument.
Continuation of Music 663.
705 Chamber Music (.5) UC:CSU - RPT 3
Lecture-Performance 3 hours.
Provides experience in typical chamber music and chamber orchestra combinations. Open to qualified instrumentalists, including pianists, string and wind instrument players.

721 Orchestra (1) UC:CSU - RPT3
Lecture-Performance 4 hours.
Concerns reading and detailed study of the standard symphonic repertoire. Provides experience in interpreting music of various styles and performing for college functions.

741 Band (1) UC:CSU - RPT 3
Lecture-Performance 4 hours.
Note: Ability to play a band instrument required
Includes the study and performance of standard works for instrumental wind ensembles.

745 Symphonic Band (.5) UC:CSU - RPT 3
Lecture-Performance 6 hours.
Note: Ability to play a wind or percussion instrument required.
Explores contemporary and traditional band literature with an emphasis upon performance-related experiences. Provides opportunities for solo performances, section rehearsals, and large ensemble rehearsals and performances.

## 755 Brass Ensemble (.5) UC:CSU - RPT 3

Lecture-Performance 3 hours.
Provides rehearsal and performance experiences that utilize a wide variety of brass literature.

## 765 Percussion Ensemble (.5) UC:CSU - RPT 3

Laboratory 3 hours.
Provides the student with the opportunity to learn a wide variety of percussion ensemble literature including both symphonic and commercial styles. Public performances will be given.

## 776 Musical Theatre (2) *UC:CSU - RPT 3

Lecture 1 hour; Laboratory 2 hours.
A survey of musical theater with emphasis on the development of singing (vocal) techniques and performance skills. Dancing, acting and movement techniques will also be covered. Opportunities will be offered to apply these skills and techniques before a student audience.

## 777 Musical Theatre Workshop (3) *UC:CSU - RPT 3

Laboratory 6 hours.
Practical experience using techniques and principles of singing and vocalization, staging of singing with dancing numbers, and acting scenes in a musical will be presented before an audience. Emphasis will focus on the development of acting, singing and movement skills.

781 Studio Jazz Band (.5) CSU - RPT 3
Lecture-Performance 4 hours.
Note: Ability to play a jazz instrument required
This course offers practical experience playing in a large jazz band. Standard and special musical arrangements are rehearsed and performed with emphasis placed upon intonation, rhythmic accuracy, artistic expression and improvisation.

## 185 Directed Study - Music (1) †UC:CSU - RPT 2

## 285 Directed Study - Music (2) †UC:CSU

385 Directed Study - Music (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Music on a contract basis under the direction of a supervising instructor.

911-941
Cooperative Work Experience Education - Music
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study and Variable Topics courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

* UC Credit Limits: Music 776 and Theater 279 combined; maximum credit, one course.
Music 777 and Theater 280 combined; maximum credit, one course.


## Numerical Control

See course listings under Industrial Technology Machine Shop/CNC

## Nursing

See "Nursing: Associate in Arts Degree" for General Education prerequisites, page 82.

400 Adult Health Care I (4) CSU
Lecture 2 hours; Laboratory 6 hours.
Prerequisite: Acceptance into the Nursing Program.
Introduces the student to the nursing process and Gordon's Functional Health Patterns as they relate to the care of the adult client. Basic clinical skills and related theory are presented. Encompasses physical, psychosocial, cultural, developmental, and legal aspects as related to nursing. Includes clinical experience.

402 Pharmacology (1) CSU
Lecture 1 hour.
Prerequisite: Acceptance into the Nursing Program.
Introduces basic knowledge and skills required for safe and effective drug therapy. Includes mathematics used in calculation of drug dosage. Specific drug classifications are discussed in conjunction with Gordon's Functional Health Patterns. Nursing process serves as a framework in the application of content to client care.

403 Adult Health Care II (5) CSU
Lecture 2 hours; Laboratory 9 hours.
Prerequisite: Completion of the first semester of the Nursing Program or its equivalent.
Introduces theory and concepts central to the practice of medical- surgical nursing, emphasizing short-term acute health problems and perioperative care. Encompasses physical, psychosocial, cultural, developmental, and legal aspects. Continues to expand knowledge of functional health patterns and the use of nursing process. Clinical experience is focused on multiple primary care assignments.

404 Maternal and Newborn Health Care (4) CSU
Lecture 2 hours; Laboratory 6 hours.
Prerequisite: Completion of the second semester of the Nursing Program or its equivalent or $B R N$ referral.
Studies the reproductive process and its effect on health and family life within the framework of the nursing process and Gordon's Functional Health Patterns. Covers the normal maternity cycle, common problems, and the newborn. Encompasses psychosocial, cultural, developmental, legal, and ethical aspects of maternity care. Women's health care is discussed. Includes clinical experience.

405 Psychiatric Health Care (4) CSU
Lecture 2 hours; Laboratory 6 hours.
Prerequisite: Completion of the first semester of the Nursing Program or its equivalent or $B R N$ referral
Introduces the concepts of psychiatric nursing utilizing Gordon s Functional Health Patterns and the nursing process. Presents current theory and practice in the care of the mentally ill. Psychosocial, physical, legal and illness stressors are discussed as they relate to the individual and family. A variety of clinical experiences are provided.

## 406 Adult Health Care III (5) CSU

Lecture 2 hours; Laboratory 9 hours.
Prerequisite: Completion of the second semester of the Nursing Program or its equivalent.
Builds upon previously learned concepts of medical-surgical nursing. Emphasizes the chronically-ill adult and gerontic client with concurrent acute health problems. Utilizes the Functional Health Patterns as a basis for assessment and implementation of the nursing process. Clinical experiences include multiple primary care assignments and introduces management of clients in small groups in the acute care setting.

407 Geriatric Health Care (3) CSU
Lecture 1 hour; Laboratory 6 hours.
Prerequisite: Acceptance into the Nursing Program.
Introduces the gerontic client including physical, psychological, social, spiritual, and intellectual aspects. Emphasizes interrelatedness of Gordon's Functional Health Patterns and nursing process, growth and development, and health problems in the aging client. Includes clinical experience.

408 Psychological Aspects of Health Care (1) CSU
Lecture 1 hour.
Prerequisite: Acceptance into the Nursing Program.
Facilitates assessment and promotion of mental health perspectives across the life span. Introduces the concepts of wellness and holistic health care while focusing on community mental health. Emphasizes nursing process and identification of behaviors which represent functional and dysfunctional health patterns as defined by Gordon. Examines multiple factors influencing mental health such as biological, sociocultural, or psychological components.

414 Adult Health Care IV (5) CSU
Lecture 2 hours; Laboratory 9 hours.
Prerequisite: Completion of the third semester of the Nursing Program or its equivalent.
Advanced theories and concepts of adult medical-surgical nursing with emphasis on complex and acute health problems. Includes physical, psychosocial, cultural, developmental, and legal aspects. Provides in-depth clinical experience utilizing functional health patterns and nursing process. Stresses management experience focusing on the staff nurse role.

415 Pediatric Health Care (4) CSU
Lecture 2 hours; Laboratory 6 hours.
Prerequisite: Completion of the third semester of the Nursing Program or its equivalent or $B R N$ referral.
Discusses concepts of Pediatric Health Care within the framework of Gordon's Functional Health Patterns and the nursing process. Emphasis is placed upon health problems and the pediatric client's unique reaction to illness. Topics include growth and development from infancy through adolescence and adaptation of nursing techniques for the pediatric client/family. Includes clinical experience

441 History, Trends, and Issues of Nursing (1) CSU
Lecture 1 hour.
Prerequisite: Concurrent enrollment in the fourth semester of the Nursing Program.
Examines current and relevant nursing issues within the context of historical development of organized nursing. Includes legal and ethical responsibilities and economic and educational issues as they affect the emergence of the modern nurse. Discusses the nurse's role as a contributing member of the discipline and the community.

442 Role Transition to RN (1) CSU
Lecture 1 hour
Prerequisite: Approval to enter the Nursing Program. Must currently be a Licensed Vocational Nurse, foreign nurse graduate or a transfer nursing student.
Orients the advanced placement nursing student to the College and to the Nursing Program. Discusses the roles and responsibilities of the registered nurse. Instruction focuses upon the application of nursing process, its components, and the use of Gordon's Functional Health Patterns for assessment. Includes development of care plans for clients in a variety of settings.

450 Clinical Nursing Preceptorship (3)
Laboratory 8 hours.
Prerequisite: Completion of the second or third semester of the Nursing Program or the equivalent.
Elective nursing course to enhance student skills and knowledge, improve clinical performance, and increase confidence in the work setting. An intensive clinical experience in which the student is paired with a staff nurse in an acute care facility. Clinical topics include management and communication.

463 Introduction to Nursing (.5)
Lecture 5 hour.
Designed for the pre-nursing major or student considering Nursing as a career. An introduction to nursing and the Nursing Program at L. A. Pierce College.

185 Directed Study - Nursing (1)
285 Directed Study - Nursing (2)
385 Directed Study - Nursing (3)
Conference 1 hour per unit.
Allows students to pursue Directed Study in Nursing under the direction of a supervising instructor.

911-941 Cooperative Work Experience Education - Nursing
See Cooperative Work Experience Education

## Oceanography

## 1 Introduction to Oceanography (3) UC:CSU

Lecture 3 hours.
Introduces the student to the general field of oceanography, including a study of the features of the ocean floor, how ocean basins are made and destroyed, the chemical and physical aspects of seawater, ocean-atmosphere interactions, ocean circulation, waves, tides, and beaches, with some emphasis on the Southern California marine environment. Interactions between marine life and seawater are also discussed. In addition, some of the effects that human society has on the ocean are discussed.

2 Introduction to Marine Biology (3) *UC:CSU
Lecture 2 hours; Laboratory 3 hours.
Same as Biology 123. Credit not given for both courses.
This course is designed to be taught at a marine biology field station in the Sea of Cortez and maximizes the opportunities afforded by field study. The lecture, laboratory and field study are integrated to examine the physical attributes of the Gulf of California nearshore ecosystem as it influences the biology of the marine plants and animals of the region. Emphasis is placed on the interactions among species which determine their distributions and the organization of communities. The biology of plants, invertebrates, fish, birds, marine mammals and marine reptiles are examined. Experimental and observational studies of fish form and function, invertebrate and fish behavior, as well as marine mammal and fish behavior and ecology are done primarily while in the water snorkeling. Issues relating to fisheries and resource utilization, and future management and/or exploitation by 3rd world countries are examined in the microcosm of the Bahia de los Angeles area of the Sea of Cortez.

10 Physical Oceanography Laboratory (2) UC:CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Oceanography 1 or concurrent enrollment.
May be offered as an honors section.
Using oceanographic data to describe ocean conditions and interpret processes responsible. Bathymetric data are used to describe the ocean floor along the Southern California coast. Sediment samples are examined and interpreted. Oceanographic data are examined that demonstrate connections between sunlight, wind, water movement and phytoplankton abundance, as well as other relationships between life and water chemistry. A half-day cruise on a research vessel may be available for student participation.

12 Lectures in Marine Biology (3) *UC:CSU
Lecture 3 hours.
Same as Biology 121. Credit not given for both courses.
Note: Students interested in earning laboratory credit are encouraged to enroll concurrently in Oceanography 14.
May be offered as an honors section.
Introduction to the biology of the marine environment. A brief introduction to the physical conditions of the oceans is followed by a comprehensive examination of marine organisms. A strong emphasis is placed on understanding the biology of groups of organisms including morphology, feeding, reproduction, adaptations and ecology. A survey of marine communities involves developing an understanding the fundamentals of community analysis and application of knowledge of the biology of individual organisms as members of communities. Communities examined include kelp forests, coral reefs, deep sea, hydrothermal vents, mangroves, the rocky intertidal zone, sandy subtidal and Antarctica. Environmental issues of fisheries management and pollution are discussed.

14 Marine Biology Laboratory (2) *UC:CSU
Lecture 1 hour; Laboratory 3 hours.
Same as Biology 122. Credit not given for both courses.
Prerequisite: Oceanography 12 or concurrent enrollment.
May be offered as an honors section.
A laboratory and field course introducing students to the Southern California nearshore marine environment. Marine plants and invertebrates and fishes are examined with respect to morphology, physiological ecology, classification and ecology. A strong field emphasis includes studies of the rocky intertidal zone, wetlands, sandy beach and nearshore pelagic and benthic communities. Students design and execute a written community analysis project requiring them to pose hypotheses, formulate a sampling design, and to analyze, plot and interpret data. Students also participate in oceanographic research cruises and experience all aspects of shipboard sampling.

185 Directed Study - Oceanography (1) †UC:CSU - RPT 2
285 Directed Study - Oceanography (2) †UC:CSU
385 Directed Study - Oceanography (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Oceanography on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty. *UC Credit Limit: Oceanography 2, 12, and 14 combined, maximum 5 units.

## Office Administration

See course listing under Computer Applications and Office Technologies

## Older Adults

Encore is a Pierce College noncredit program that provides lifelong learning designed specifically for older adults.

## 29CE

## Literature and the Human Experience

This course is designed for older adults and offers a variety of literary experiences both past and present taking into consideration individual interests, backgrounds, and mental abilities. Selected literary works will be read and discussed. Class discussion provides an opportunity for participants to express an opinion and share life experiences.

## 42CE Creative Art for Seniors

Designed to unlock creativity with guided visualization in art Students will learn to express themselves through drawing, painting and design.

Arts \& Crafts for Assisted Living
This course is designed for assisted living residents. A supportive and stimulating environment is provided to develop ideas expressed through mixed media, painting, sculpture and papermaking.

Personal Finance for Seniors
This course is specifically designed for the older adult. The course will cover basic investment strategies, financial planning, the law, as well as techniques to minimize taxes and facilitate asset transfers.

## 47CE Beginning Shakespeare for Seniors

Participants will become acquainted with the great dramatic genius. Selected plays by Shakespeare will be read and discussed.

48CE Writing your Autobiography
This course will enable participants to share memories and create a record of events for family and friends. Learn the technical aspects of autobiography while reviewing and discussing the experiences that shape our lives.

## 49CE Music Appreciation for Seniors

Each week the class will focus on different musical themes and musical eras. The class will be invited to share musical memories while listening to professionally recorded music.

## 50CE Bereavement Support Group

Learn about the natural grieving process while learning how to heal and rebuild your life. Participants will have an opportunity to share experiences with others in a compassionate environment.

## 51CE Feeling Fit for Seniors

Build and maintain strength with resistance exercises. This course is for beginners who have not exercised frequently.

## 52CE Body Movement for Seniors

Improve cardiovascular performance with low impact aerobic exercises, some strength training and stretch movements; increase your flexibility with a variety of motions to music.

## Yoga for Seniors

This course will introduce participants to a form of yoga that conditions and improves flexibility and balance. Apply these concepts to manage stress and improve restful sleep.

55CE Implications of Aging
Explore the issues facing adults in contemporary society: stereotypes, age bias, loss and change. Course will examine the aging process using physiological, psychological and sociological points of view.

Seeing and Understanding Art for Seniors
Investigate the history of art and view selections from particular time periods and regions. Students will view art through slides, film and video.

57CE Adventures in Theatre
This class explores the development of a play from paper to performance. Students will be guided from the backstage to the front stage while tracing the life cycle of a play from the hands of the playwright through auditions, rehearsals and performance.

58CE Healthy Living
Learn about health promotion and lifestyle choices by reviewing research and literature from allied health professions.

## Body Conditioning for Seniors

Build and maintain strength with resistance exercises. Improve cardiovascular performance with low impact aerobic exercises, strength training and stretch movements for core strength, weights and resistance machines for muscular strength and increased bone density, and stretches for increased flexibility.

## Senior Topics

This course is designed for older adults and offers a variety of topics both past and present taking into consideration individual interests, backgrounds, and physical and mental abilities. The discussion forum provides an opportunity for participants to express an opinion, share life experiences, compare events through reminiscence and examine current events to interpret how they impact their lives.

## 61CE Chi Gong / Tai Chi for Seniors

This course is designed for the older adult and offers instruction in the principles of chi gong and tai chi to maintain and increase flexibility, muscle tone, breathing capacity, and enhance coordination and balance. This course provides exercises that are flowing, smooth and gentle on the body and contribute to sound physical, mental and emotional well-being.

62CE

## Life Drawing for Seniors

This course will introduce the older adult student to rendering the human figure through gesture, contour and value. A variety of materials and techniques will be utilized in describing the human form.

63CE

## Watercolor Painting for Seniors

This course introduces participants to basic watercolor techniques and equipment while concentrating on color and composition.

## VOC ED 187CE Computer Usage Skills

This short-term open entry-open-exit, self-paced course will allow students to learn to use microcomputers as an educational tool and workplace skill. The course will provide non-threatening mode for computer training in the use of software and the Internet to complete assignments.

# Personal Development 

## 4 Career Planning (1) CSU

Lecture 1 hour.
Designed to give the vocationally undecided student an understanding of the career planning process. May include vocational tests, various self appraisal techniques, and information regarding occupational characteristics, trends, entry and career levels. Teaches career planning skills and allows the student to work toward a career choice.

8 Career Planning and Development (2) CSU Lecture 2 hours.
Teaches the process of career planning. The emphasis is on learning about yourself and the world of work and how to use this information in career planning. This course also acquaints the students with college services, personnel, curricula, and student activities.

## 15 Personal Development Seminar (3) (NDA) - RPT 3

Lecture 3 hours.
Group study of a selected topic, the title and units to be specified in the schedule of classes. No more than 3 units may be taken in any semester.

## 40 College Success Seminar (3) UC:CSU

Lecture 3 hours.
This course introduces students to the study of the educational, psychological, intellectual, social, and health-related factors that impact lifelong learning, well-being, and success. Topics include factors affecting internal and external motivation, critical thinking, effective learning strategies, interpersonal and cross-cultural communication, health and wellness issues, effective written and oral communication strategies, life management strategies, career exploration and educational planning.

## Philosophy

## 1 Introduction to Philosophy (3) UC:CSU

Lecture 3 hours.
This is a basic introduction to some of the fundamental issues of philosophy and humanity that include topics such as knowledge and reality, the meaning of the supernatural, the foundations of truth and science, and the nature of human consciousness/self.

## 2 Society and Values (3) UC:CSU (CAN PHIL 2)

Lecture 3 hours.
May be offered as an honors section.
This course introduces the student to some of the traditional and contemporary theories in rational decision making about ethical and political issues.
$5 \quad$ Critical Thinking and Composition (3) UC:CSU
Prerequisite: English 101 with a grade of "C" or better. May be offered as an honors section.
This course is a development of critical thinking skills necessary for evaluation and formulation of argumentative essays, and practice in applying these skills. Critical writing about philosophical/logical concepts applicable to any systematic thinking is the focus of this course.

6 Logic in Practice (3) UC:CSU (CAN PHIL 6)
Lecture 3 hours.
Logic in Practice deals with how to understand and evaluate arguments and explanations by applying accepted standards of good reasoning. Students will learn techniques to recognize deductively valid arguments and avoid formal fallacies. They will also consider what is required for inductively strong arguments in order to avoid informal fallacies. There is particular emphasis on the appeals made in advertising and political rhetoric.

## 9 Symbolic Logic I (3) UC:CSU

Lecture 3 hours.
Introduces techniques for representing truth-functional statements using letters and symbols, determining the validity of arguments using such statements, and demonstrating validity through formal proofs using a natural deduction system. Covers both propositional and quantificational logic through to first-order predicates and identity.

12 History of Greek Philosophy (3) UC:CSU (CAN PHIL 8) Lecture 3 hours
May be offered as an honors section.
This course introduces the student to a rigorous overview of ancient Greek thought starting with pre-Socratic philosophers and ending with Greco-Roman philosophy of the later ancient period. Major emphasis is placed on the works of Plato and Aristotle.

14 History of Modern European Philosophy (3) UC:CSU (CAN PHIL 10) (Philosophy 12+14 = CAN PHIL SEO A) Lecture 3 hours.
May be offered as an honors section.
Traces western philosophy from the renaissance to the 20th century. The course explores the rise of modern science, continental rationalism and British empiricism, and Kant.

15 History of Contemporary Philosophy (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Studies recent philosophical developments in Continental and AngloAmerican philosophy with readings from such figures as Nietzsche, Heidegger, Husserl, Derrida, Foucault, Gadamer, Ricoeur, Habermas, Russell, Wittgenstein, Dewey, Quine, Rawls, Davidson and Rorty

19 Contemporary Problems in Bioethics (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
This class introduces the student to some of the traditional ethical theories and how they apply to contemporary biomedical ethical problems. Topics to be discussed will include some of the following: abortion, euthanasia, suicide, organ donation, informed consent, allocation of scarce resources, genetic engineering, human and animal research, stem cell research, and cloning.
45 C. E. U.'s will be available upon request.
20 Ethics (3) UC:CSU (CAN PHIL 4)
Lecture 3 hours.
May be offered as an honors section.
Considers human conduct, the rules and institutions of moral order, and philosophically examines a range of today's moral issues, such as the just distribution of the social good, abortion, euthanasia, the environment, war, and world hunger.

29 The Ethics of Biotechnology (1) *UC:CSU
Lecture 1 hour.
Corequisite: Biology 40
This course provides an introduction to the use of ethical theories to examine the dilemmas associated with advances in biotechnology and methods of resolution of these dilemmas.

## 30 Asian Philosophy (3) UC:CSU

Lecture 3 hours.
Presents the history and key teachings of the philosophical traditions of East and South Asia with emphasis on Confucianism, Daoism, Hinduism, and Buddhism.

33 Comparative Survey of World Religions (3) UC:CSU
Lecture 3 hours.
This course is a historical overview of the principal religious traditions of the world, concentrating on Hinduism and Buddhism, Confucianism and Daoism, Christianity and Islam. Course considers origins, principal beliefs and practices, and contemporary issues.

35 Judaism, Christianity, and Islam (3) UC:CSU
Lecture 3 hours.
Offers a study of the history and doctrines of those religions that have emerged from the tradition of the prophet Abraham. The course will consider other major influences on their early development, including, but not limited to, ancient Egyptian and Mesopotamian religions, Zoroastrianism, Greek philosophy and Hellenic mystery religions. Representative sacred texts will be read.

40 Introduction to the Philosophy of Art (3) UC:CSU Lecture 3 hours.
This introductory class will discuss and critically evaluate: the meaning of art, the meaning of beauty, truth in art, creativity and art, various philosophical theories regarding the nature of art.

41 Introduction to Philosophy and Literature (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Studies the literary medium as it is employed to express and explore philosophical themes such as freedom, determinism, moral responsibility, alienation and logic. Each particular class also allows for a review of literature of a relatively specific milieu, for example, twentieth century existentialism. Cognate concepts from literary criticism, anthropology, sociology, psychology and religion are utilized for understanding selected literary works although no background in any of these fields is required.

## 42 Philosophy and Cinema (3) UC:CSU

Lecture 3 hours.
May be offered as an honors section.
Examines film as philosophy, as a philosophical statement by the filmmaker via his or her art form; covering the traditional philosophical problems within the human condition, such as the very meaning of that human condition, reality, self, freewill, morality, mortality, along with other questions within the human quest that come under the role of philosophy.
*UC Credit Limit: Philosophy 29 must be taken with Biology 40 to receive transfer credit.

## Photography

## 9 Introduction to Cameras and Composition (3) UC:CSU

Lecture 3 hours.
Not offered each semester.
Note: Intended for non-photo majors. No laboratory. Students must have a 35 mm camera. Fully automatic cameras without manual override capabilities do not allow students to fulfill some of the course's required assignments and limit the student's ability to learn basic photography concepts. If in doubt, contact the Photography Lab in BUNG 0333 for specific recommendations.
Designed to provide basic information in the use of cameras, lenses, film and exposure to produce good photographs. Slide assignments are given for analysis in class.

10 Beginning Photography (3) UC:CSU (CAN ART 18)
Lecture 2 hours; Laboratory 3 hours.
Note: Students must have a 35 mm camera. Fully automatic cameras without manual override capabilities do not allow students to fulfill some of the course's required assignments and limit the student's ability to learn basic photography concepts. If in doubt, contact the Photography Lab in BUNG 0333 for specific recommendations.
Recommended Preparation: Previous or concurrent enrollment in Journalism 100 for Photojournalism majors. Students interested in taking advanced photo classes should enroll in Photography 27 concurrently with Photography 10 or the next semester.
Presents theory and practice in basic photography with emphasis on the use of a 35 mm camera, development of negatives and final prints. Students should have their own cameras.

11 Advanced Photography (4) CSU - RPT 2
Lecture 2 hours; Laboratory 6 hours.
Prerequisite: Photography 10 with a grade of " $C$ " or better.
Recommended: Previous or concurrent enrollment in Journalism 101 for Photojournalism majors.
Provides theory and practice of contemporary use of the camera; training in projection control; includes special effects procedures with an emphasis on creative thinking and idea preparation and execution.

16 Fundamental Commercial Photography (3)
Lecture 2 hours; Laboratory 3 hours. Not offered each semester
Prerequisite: Photography 11 with a grade of " $C$ " or better.
Covers the major phases of commercial and illustrative photography as they apply to publication photography.

17 Introduction to Color Photography (3) CSU
Lecture 2 hours; Laboratory 3 hours. Not offered each semester Prerequisite: Photography 11 with a grade of " $C$ " or better. Studies the theory of light and color and its relationship to exposure and color printing (type C and type K). Also, color negative (C-41) and transparency processing (E-6), color printing techniques and basic quality control are studied and practiced.

20 Beginning Photojournalism (4) CSU
Lecture 2 hours; Laboratory 6 hours.
Prerequisite: Photography 10 with a grade " $C$ " or better.
Recommended Preparation: Previous or concurrent enrollment in Journalism 101 for Photojournalism majors.
Covers photojournalism methods, coverage of news, feature, sports events, and documentary photography.

21 News Photography (4) CSU - RPT 3
Lecture 2 hours; Laboratory 6 hours.
Same as Journalism 221. Credit not given for both courses. Prerequisites: Photography 20 with a grade of "C" or better.
Gives practice experience in the taking and processing of news and feature pictures, emphasizing the use of cameras normally employed in photojournalism. Affords students the opportunity to take, develop, and print pictures for the college newspaper and magazine.

27 History and Aesthetics of Photography (6) *UC:CSU Lecture 6 hours.
*UC transferability pending approval and limited to 3 units.
Provides a chronological description of the major developments of the photographic medium. Relates these developments to society and to events in the other visual arts, and examines the meaning of photography as a work of art.

49 Advanced Photographic Digital Imaging (6)
Lecture 2 hours; Laboratory 8 hours.
This digital imaging course will incorporate the use of camera, photographic software, scanners, and printers. Emphasis on creating and printing photographic images.

185 Directed Study - Photography (1) CSU - RPT 2

## 285 Directed Study - Photography (2) CSU

385 Directed Study - Photography (3) CSU
Conference 1 hour per unit
Allows students to pursue Directed Study in Photography on a contract basis under the direction of a supervising instructor.

911-941 Cooperative Work Experience Education - Photography See Cooperative Work Experience Education

## Physical Education

University of California accepts 4 units of credit from the following Physical Education courses listed under the headings of Aquatics, Individual and Dual Activities, Team Sports, Dance, and Intercollegiate Sports plus related activities. All classes may be taken by either gender with the exception of Intercollegiate Sports, which classifies various activities for "Men" or "Women."

Note: Only courses marked activity meet the District Requirements for Physical Education activity. Read thoroughly the Schedule of Classes to determine which level one should enroll in (i.e., Beg., Int., Adv.)

The activity of Physical Education requires repetitive practice for the student to achieve the course objectives. For this reason, it is educationally sound for a student to repeat a Physical Education activity course. No activity course may be taken for more than four semesters.
Check with the Department or Counseling Office for transferability of courses to four-year institutions and for unit limitations of courses accepted by both University of California and CSUN.

90 Individual Physical Fitness Laboratory A and B (2) UC:CSU - RPT 3 Laboratory 4 hours.
Individualized program to develop cardiovascular endurance, muscular endurance, strength and flexibility through aerobics, low impact aerobics, stretch/tone, power walking, jogging, weight training, resistance exercises, aqua-aerobics, par course and other exercise equipment. Individual evaluation and information on fitness, body composition analysis, nutrition and stress management.

91 Theory and Application of Aerobics and Conditioning (3) CSU Lecture 2 hours; Laboratory 2 hours.
Increases student awareness regarding changes in physiology resulting from aerobic exercise. Provides the students with an opportunity to participate in, and understand the components of a valid conditioning and nutritional program.

Aquatics (1) *UC:CSU - RPT 3
Activity, 2 hours.
Beginning, intermediate, and advanced levels offered for all courses listed below except 101. All levels may not be taught each semester:

| 101 | Non-Swimmer |
| :--- | ---: |
| 102 | Swimming Skills |

Individual and Dual Activities (1) *UC:CSU - RPT 3
Activity, 2 hours.
Beginning, intermediate, and advanced levels offered for all courses listed below. All levels may not be taught each semester:

| 203 | Badminton Skills |
| :--- | ---: |
| 212 | Tennis Skills |
| 225 | Yoga Skills |
| 228 | Body Conditioning |
| 229 | Body Dynamics |
| 230 | Weight Training Skills |
| 238 | Self-Defense Skills |
| 259 | Golf Skills |

## Team Sports (1) *UC:CSU - RPT 3

Activity, 2 hours.
Beginning, intermediate, and advanced levels offered for all courses listed below. All levels may not be taught each semester:

| 301 | Baseball Skills |
| :--- | ---: |
| 304 | Basketball Skills |
| 313 | Soccer Skills |
| 322 | Volleyball Skills |

440 Social Dance (1) *UC:CSU - RPT 3
Activity 2 hours.
Same as Dance 440
Popular social dancing including the Waltz, Foxtrot, East Coast Swing, West Coast Swing, Merengue, Tango, Cha Cha, Rhumba, Salsa, a review of the 20's dances, and other ballroom and social styles as time permits.

Intercollegiate Sports - Men, Women, and Coed. (2) UC:CSU - RPT 1
Activity, 10 hours or more in the sports in season.

| 503 | Baseball (Men) |
| :--- | ---: |
| 504 | Basketball (Men/Women) |
| 508 | Football (Men) |
| 511 | Soccer (Women) |
| 512 | Softball (Women) |
| 513 | Swimming (CoEd) |
| 514 | Tennis (Men) |
| 516 | Volleyball (Men/Women) |

550 Cheer / Yell Leaders / Marching Band (2) CSU - RPT 3
Activity, 6 hours. May be offered in 1 unit, 3 hour modules $A$ \& $B$
552 Athletics Pre-season Conditioning (1) UC:CSU - RPT 3 Activity, 3 hours.

Intercollegiate Sports - Strength and Fitness Training (1) UC:CSU - RPT 3
Activity, 3 hours.
These courses are designed for the student athlete and are intended to provide focused strength and conditioning exercises, emphasize safety and injury prevention and present new rules and techniques for the sport.

| 553 | Football |
| :--- | ---: |
| 554 | Field |
| 555 | Cross Country |
| 556 | Basketball |
| 557 | Baseball |
| 558 | Soccer |
| 559 | Tennis |
| 560 | Competitive Swimming |
| 561 | Water Polo |

640 Beginning Lifelong Fitness Laboratory (1) UC:CSU - RPT 3 Laboratory 3 hours.
A laboratory physical fitness course designed to assess and address the areas of cardiovascular efficiency, body composition, muscle strength and endurance, and flexibility.

## 665 Basketball (1) UC:CSU - RPT 3

Activity 3 hours.
This course is an activity class requiring 3 hours per week of participation in various basketball activities and skills.

666 Body Conditioning (1) *UC:CSU - RPT 3
Laboratory 3 hours.
This course offers instruction and participation in theory and techniques of attaining increased overall fitness through endurance and strength training utilizing resistance machines, circuit training, par course, and running.

675 Karate (1) $\triangle$ UC:CSU - RPT 3
Activity, 3 hours.
$\Delta U C$ transferability pending approval.
This course is structured under the Korean martial art Taekwondo. It emphasizes both the physical and mental aspects of human development. Focuses on improving flexibility, muscle strength, endurance, coordination, balance, self-confidence, and self-esteem.

684 Volleyball (1) UC:CSU - RPT 3
Activity 3 hours
A course designed to teach the individual the fundamental principles of the rules, skills, play strategy and team work of volleyball.

690 Weight Training (1) *UC:CSU - RPT 3
Laboratory 3 hours.
This course offers instruction and practice in theory and techniques of weight training to gain muscle strength, flexibility; and endurance

Directed Study - Physical Education (1) tUC:CSU - RPT 2
285 Directed Study - Physical Education (2) tUC:CSU
385 Directed Study - Physical Education (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Physical Education under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - Physical Education
See Cooperative Work Experience Education
*UC Credit Limit: Any or all courses, maximum 4 units.
**UC Credit Limit: Any or all courses, maximum 12 units. $\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Physical Science

## 4 Physical Science \& Laboratory (4) *UC:CSU

Lecture 3 hours; Laboratory 3 hours.
Same as Physical Science 1 and 14 combined.
This is a one semester, inquiry-based physical science course suitable for a general education course or prospective or practicing elementary teachers. This is a single integrated course without separate lecture and laboratory parts. This course uses a computerized active learning format involving group activity and discussion. Students construct a meaningful understanding of physics and chemistry concepts through hands-on experiences and computer simulations. The course covers: mechanics, electricity \& magnetism, light, thermodynamics, physical changes, chemical changes, and the periodic table.

185 Directed Study - Physical Science (1) †UC:CSU - RPT 2

## 285 Directed Study - Physical Science (2) †UC:CSU

385 Directed Study - Physical Science (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Physical Science on a contract basis under the direction of a supervising instructor.
*UC Credit Limit: Physical Science 1, 4, and 14 combined maximum credit 4 units.
No credit for Physical Science 1 if taken after a college course in astronomy, chemistry, geology or physics.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Physics

All Physics, Engineering, and Astronomy majors should enroll in either Physics 101 if qualified or Physics 6 their first semester at Pierce.

6 General Physics I (4) *UC:CSU (CAN PHYS 2)
Lecture 3 hours; Laboratory 3 hours.
May be offered as modules $6 A$ (3 units) and 6B (1 unit)
Prerequisite: A course in Trigonometry with a grade of " $C$ " or better:
Introduction to general physics addressing mechanics, thermodynamics, and Vibrations \& Sound. The course includes both lecture and laboratory. The laboratory provides students hands-on verification of the laws of physics discussed in the lecture.

7 General Physics II (4) *UC:CSU (CAN PHYS 4) (PHYSICS 6+7=CAN PHYS SEO A)
Lecture 3 hours; Laboratory 3 hours.
May be offered as modules $7 A$ (3 units) and $7 B$ (1 unit)
Prerequisite: Physics 6 with a grade of " $C$ " or better.
Continues Physics 6 into principles of electricity and magnetism, optics, and modern physics. The laboratory includes both quantitative and qualitative experiments, and active-learning activities which permit students to verify, illustrate, and deduce various laws of physics.

12 Physics Fundamentals (3) **UC:CSU
Lecture 3 hours.
Credit not given for BOTH Physical Science 1 and Physics 12.
Surveys the field of physics including laws of motion, properties of matter, heat, sound, electricity and magnetism, light, atomic and nuclear physics, and relativity. There will be given an historic perspective and applications in today's culture.

66 Physics for Life Science Majors I (5) *UC:CSU
Lecture 3 hours; Laboratory 6 hours.
Prerequisite: Mathematics 240.
Corequisite: Mathematics 261.
Considers, at the beginning calculus level, the fundamental principles of mechanics, gravitation, thermodynamics, fluids, oscillatory motion, waves and sound, with applications to biological and biochemical systems.

67 Physics for Life Science Majors II (5) *UC:CSU
Lecture 3 hours; Laboratory 6 hours.
Prerequisites: Mathematics 261 and Physics 66.
Continues the study begun in Physics 66 into principles of electricity and magnetism, optics, and modern physics, at the beginning calculus level of mathematical sophistication, with applications to biological and biochemical systems.

101 Physics for Engineers and Scientists I (5) *UC:CSU
Formerly Physics 37.
Lecture 3 hours; Laboratory 6 hours.
Prerequisite: Mathematics 261.
Corequisite: Mathematics 262.
Considers the fundamental principles and applications of classical mechanics, gravitation, periodic motion, and fluid mechanics at the beginning calculus level of mathematical sophistication. The laboratory includes both quantitative and qualitative experiments, tutorials, and active learning activities which permit students to verify, illustrate, and deduce various laws of physics.

102 Physics for Engineers and Scientists II (5) *UC:CSU
Formerly Physics 38.
Lecture 3 hours; Laboratory 6 hours.
Prerequisites: Mathematics 262 and Physics 101.
Corequisite: Mathematics 263.
Continues the study of physics begun in Physics 101 involving introductory thermodynamics and electricity and magnetism. The laboratory includes both quantitative and qualitative experiments, tutorials, and active-learning activities which permit students to verify, illustrate, and deduce various laws of physics.

103 Physics for Engineers and Scientists III (5) *UC:CSU (PHYSICS 101+102+103=CAN PHYS SEO B)
Formerly Physics 39.
Lecture 3 hours; Laboratory 6 hours.
Prerequisites: Mathematics 263 and Physics 102.
Concludes the study of physics begun in Physics 101 and Physics 102 involving waves, light and optics, relativity, introductory quantum mechanics, atomic and nuclear physics. It may include topics in molecular and condensed matter as well as particle physics. The laboratory includes both quantitative and qualitative experiments, tutorials, and activelearning activities which permit students to verify, illustrate, and deduce various laws of physics.

## 911-941

Cooperative Work Experience Education - Physics
See Cooperative Work Experience Education
*UC Credit Limit: Physics 6 and 7, or 66 and 67, or 101, 102 and 103; maximum credit, one series.
${ }^{* *}$ UC Credit Limit: No credit for Physics 12 if taken after Physics 6 or 101.

## Physiology

1 Introduction to Human Physiology (4) *UC:CSU (CAN BIOL 12) (ANATOMY 1+PHYSIOLOGY 1=CAN BIOL SEO B)
Lecture 3 hours; Laboratory 3 hours.
Prerequisite: Anatomy 1, or Agriculture 511 and 512, AND Biology 3, 6 or 44 with a grade of "C" or better.
Lectures and laboratory exercises focus on the principle functions of the human body; circulatory, respiratory, digestive, nervous, sensory, muscular, excretory, endocrine, and reproductive.

The following sequence (Physiology 8 followed by Physiology 9) is fully equivalent to the separate Anatomy 1 and Physiology 1 courses.

8 Integrated Human Anatomy and Physiology I (4) *UC:CSU
Lecture 3 hours; Laboratory 3 hours.
Prerequisite: Biology 3, 6 or 44 with a grade of " $C$ " or better.
Introduction to the structure and function of the human body, with emphasis on the organ and systems level of study. Anatomical and physiological topics are integrated in this first course of a two semester sequence. Laboratory includes quantitative measurements of physiological and clinical relevance, and includes the study of human cadavers.

9 Integrated Human Anatomy and Physiology II (4) *UC:CSU (PHYSIOLOGY 8+9=CAN BIOL SEO B)
Lecture 3 hours; Laboratory 3 hours.
Prerequisite: Physiology 8 with a grade of " $C$ " or better.
Introduces structure and function of the human body, with emphasis on the organ and systems level of study. Anatomical and physiological topics are integrated in this second course of a two semester sequence.
*UC Credit Limit: Physiology 1, 8, and 9 combined, maximum 8 units.

## Plant Science

| Agriculture - General | Plant Science 100-199 |
| :--- | :--- |
| Horticulture and Landscaping | Plant Science 700-899 |
| Natural Resources Management | Plant Science 900-999 |

## 103 Introduction to Soils (3) UC:CSU (CAN AG 14)

Lecture 2 hours; Laboratory 2 hours.
Considers the origin, formation, structure, and composition of soils. Includes the effects of tillage, drainage, and irrigation upon soil productivity. Examines the effect of laboratory and field work dealing with the maintenance and improvement of soil fertility upon various crops and farm systems. Analyzes the effect of organic and inorganic fertilizers upon soil productivity, control of Soil moisture, and the problems of alkali and dry land management.

110 Food and Society (3) CSU
Lecture 3 hours.
A general education course which reviews the role and impacts of food, and food production, on the development of civilization. The biological and ecological impacts of food production will be covered as well as the economic, political, and social dimensions of modern Agri-business. World hunger and food policies will explore the future.

701 Retail Floral Design and Practices I (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Teaches students the flowers and plants in Southern California used primarily in the florist trade. Includes the use and care of equipment used in the trade and shop practice in flower care and corsage making.

702 Retail Floral Design and Practices II (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Plant Science 701.
Continues Agriculture 701. As laboratory work, includes bowl arrangements for home and hospital, baby novelty arrangements, and anniversary arrangements. Studies foliage and flowering plant trimming, green planters, and the use of plastic flowers.

703 Retail Floral Design and Practices III (2) CSU
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Plant Science 702.
Continues Agriculture 702. Studies floral designing of memorial offerings, floral sprays, set pieces such as wreaths, hearts, crosses, and blankets. Includes a study of general shop techniques. As part of the course requirements, requires students to spend some time in local floral shops.

704 Advanced Retail Floral Design and Practices (2)
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Plant Science 703.
Presents advanced demonstration in floral arrangements for special occasions, including complete coverage of wedding bouquets and corsages, church decorations, ballroom and banquet decor.

## 708 Floristry Projects (6)

Laboratory 12 hours.
Involves planning, developing, and completing an individual floricultural production project under the guidance of a faculty advisor, on or off the college campus.

## 711 Botany for Horticulture (4) UC:CSU

Lecture 3 hours; Laboratory 3 hours.
Considers the fundamentals of botany, including a study of the main external parts and functions of flowering plants, the basic plant cell, composition and functions, and various specialized tissues and thei functions. Discusses plant reproduction, both sexual and asexual, including the basics of plant breeding and selection of new varieties for landscape horticulture. Emphasizes recognition, proper utilization, and maintenance of ornamental plants.

## 714 Principles of Horticulture (3) CSU

Lecture 3 hours.
Concerns the maintenance work commonly done in home and estate gardens as well as parks and other public areas. Gives attention to lawn care, techniques of watering, fertilization and weed control.

716 Arboriculture I (Care of Trees and Shrubs) (1) Lecture 1 hour.
Basic methods of tree and shrub care. Selection, planting and maintenance of trees and shrubs from youth to specimen maturity. Emphasizes cultural aspects as well as selection criteria. Extensive instruction in pruning and shaping.

## 721 Organic Gardening (1)

Lecture 1 hour.
Introduces natural methods of food production. Different organic gardening methods; discussion of organic types of fertilizers, composting and pest control methods; sources of natural gardening supplies and natural food cooperatives are covered.

## 722 Care of Horticulture Equipment I (1)

Lecture 1 hour.
Studies the selection, storage, maintenance, and care of horticultural tools and equipment with emphasis on hand operated types. Includes sources of equipment, adjustment, service, sharpening, and repair.

## 724 Drip Irrigation Techniques (1) CSU

Lecture 1 hour.
Studies the design, installation and maintenance of drip irrigation systems with emphasis on both theory and practical application to ornamental horticulture and food crop production.

## 725 Vegetable Production (1) CSU

Lecture 1 hour.
Discusses production of garden vegetables, preparation of the seed bed, planting, watering and fertilization. Pest control methods, selection of varieties and gardening equipment and tools are topics of instruction.

729 Viticulture Practices (3) CSU
Lecture 2 hours; Laboratory 2 hours.
A comprehensive study of grape growing utilizing the college plantings for field practice in planting, training and maintaining the vineyard. Varietal identification and use. Commercial production practices, mechanization and processing are covered.

## 730 Introduction to Enology (1) CSU <br> Lecture 1 hour.

History of wine and the wine production regions of the world. Emphasis on grapes and wine in California's historic Los Angeles area. Considers wine production and techniques. Theoretical aspects only. Wine not tasted or made.

## 742 Practicum in Horticulture (5) CSU

Lecture 5 hours.
See schedule of classes for specific topics.
Designed to present specific subjects to meet the needs of the horticulture industry and the community-at-large. Also meets the requirement for continuing education for various horticulture industries as dictated by the Agriculture Code of California.

## 756 Greenhouse Plant Production (3) CSU

Lecture 2 hours; Laboratory 3 hours.
Studies the status of the flower and pot plant growing industry. Considers all types of forcing structures, including their parts, maintenance, and use. For both greenhouse and field situations, studies soil and container mixes, nutrition, light, temperature, moisture, and pest and disease problems. Identifies flowering and foliage plants in common usage, which are grown in laboratory practice. Includes field trips for observation of industry facilities, methods, and problems.

## 757 Plant Propagation (3) CSU

Lecture 2 hours; Laboratory 3 hours.
Provides practice in plant propagation for commercial or home use. Requires students to propagate plant materials during laboratory hours. Discusses propagation methods, structures, diseases, and insect prevention and control of the plants being propagated. Provides laboratory work which includes seeding, transplanting, cutting, budding and grafting, potting and canning.

760 Indoor Plant Care and Maintenance I (1)
Lecture 1 hour.
Watering, fertilization, staking, pruning and planting the house plant. Discusses soil, light and humidity relationships. Discusses how and where to purchase plants.

761 Indoor Plant Care and Maintenance II (1)
Lecture 1 hour.
Prerequisite: Plant Science 760.
A continuation of Plant Science 760. Discusses general plant care, pest control and troubleshooting plant problems. Instruction of the plant maintenance business to include all aspects of customer relations and plant maintenance technician operations.

## 762 Interior Plantscaping (1)

Lecture 1 hour.
Economic and managerial aspects of plantscaping. Introduces technical aspects of interior design and planting. Emphasis on foliage plant selection and installation and client relationships.

800 Plant Identification and Use I (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Recommended: Plant Science 711 or Botany 1.
Presents a general course in plant identification, including woody and non-woody kinds. Emphasizes ornamental trees, shrubs, and vines, with some attention to annuals, perennials, flowers, succulents, and grasses. Is planned chiefly for students entering the fields of nursery practices, landscaping, and maintenance.

801 Plant Identification and Use II (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Continues Agriculture 800, considering plants used in landscaping and nursery occupations not included in Agriculture 800. Requires a number of field trips for observation of plants and their uses.

802 Plant Identification and Use III (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Includes the basic botany, habits, habitats, and culture of ornamental and fruit trees. Emphasizes identification, selection, training, correct placement, planting, and all-around care of trees. Considers problems of pruning, fertilization, pests and diseases and their treatment. Uses demonstrations and field trips largely within the school facilities.

803 Native Plants for the Landscape (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Teaches California native plant materials suitable for landscape use. Includes some drought tolerant species as well. Emphasizes recognition, selection for specific uses, cultural requirements, and ecology;

804 Landscape Drafting and Graphics (1)
Lecture 1 hour.
Basic landscape drafting practices, lettering, line work, symbols, sheet composition and dimensioning. Provides brief introduction to landscape design.

805 Basic Planting Design (1)
Lecture 1 hour.
Prerequisite: Plant Science 800 and 801 and 804.
Design and preparation of landscape planting plans. Emphasizes ecological and aesthetic considerations.

806 Landscape Planning and Design (4) $\Delta \mathrm{UC}: \mathrm{CSU}$
Lecture 2 hours; Laboratory 4 hours.
$\Delta$ UC Credit Limit: Plant Science 806 and 807 maximum of one course. Includes the fundamental principles of landscape design, drafting, mapping techniques, basic design concepts as applied to residential and commercial developments, and practice in preparing landscape plans for small properties. Students must provide their own drawing equipment.

807 Advanced Landscape Planning and Design (4) $\Delta$ UC:CSU - RPT 3 Lecture 2 hours; Laboratory 4 hours.
Prerequisite: Plant Science 806.
$\triangle$ UC Credit Limit: Plant Science 806 and 807 maximum of one course. Continues Agriculture 806 with special emphasis on planting design oriented to commercial aspects, grading plans, construction drawings, specifications, cost estimates, and client relationships. Affords practice in solution of more difficult problems.

808 Residential Landscape Design (3) CSU
Lecture 3 hours.
Concentrates on home landscaping and the identification and selection of plant materials suitable for the average small house. Considers tree placement, lawn and ground covers, floral and shrub borders, foundation planting, the outdoor living space, play areas, and service yards. Requires students to complete a landscape plan of their choosing.

811 Landscape Construction Design (1)
Lecture 1 hour.
Prerequisite: Plant Science 804.
Design of basic garden elements (i. e. walls, overheads, pools, steps, fences, decks, and paving). Reviews construction materials and their inherent qualities. Preparation of construction drawings.

812 Landscape Installation and Maintenance I (3) CSU - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Teaches how to install the landscape work commonly done at commercial and residential job sites. Includes sod installation; soil preparation; turf renovation, tree moving equipment; pruning and surgery; injection feeding; lawn header board construction; vertical mulching techniques; planting of shrubs, trees, flowers, and ground covers. Covers use and care of operative equipment used by landscaping and maintenance crews, rototillers, edgers, mowers, sod cutters, chainsaws, and use of instruments (transit, builders level, etc.).

813 Landscape Installation and Maintenance II (3) - RPT 1
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Plant Science 812.
A continuation of skills and practices in the installation and maintenance of landscape projects. Emphasis will be on maintenance and business aspects.

## 815 Blueprint Reading and Cost Estimating (2)

Lecture 1 hour; Laboratory 2 hours.
Interpretation of construction drawings and specifications for landscaping, to include quantity counts of material items and estimating costs of labor and materials.

816 Grading and Drainage Planning (1) CSU
Lecture 1 hour.
Proper grading and drainage methodology in the landscape construction industry. Emphasis will be given to industry standards and practices.

817 Landscape Contracting Practices (1) CSU
Lecture 1 hour.
Licensing requirements, testing procedures, and responsibilities of operating as a licensed landscape contractor.

818 Basic Construction Techniques
(Landscape Construction) (3) CSU
Lecture 2 hours; Laboratory 3 hours.
Note: Due to the nature of the class, strenuous activity is necessary on occasion.
Includes fundamental concepts, materials and methods of working with earth, wood, concrete, concrete block, brick and stone, and irrigation and drainage as they apply to construction. Includes projects, blueprint reading, budget information, use of construction equipment and instruments as related to projects. Includes operation of power equipment.

819 Advanced Construction Techniques (3)
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: Plant Science 818.
Installation of landscape projects with a minimum of instruction and supervision. Emphasis on responsibility and decision making.

## 820 Irrigation Design and Installation (3) CSU

Lecture 2 hours; Laboratory 2 hours.
Studies the importance of irrigation to plant growth as well as the various methods of irrigation with special emphasis on sprinklers and irrigation management procedures.

821 Advanced Irrigation Design (3) CSU - RPT 2
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Plant Science 820.
Design of large irrigation system, including multisystem operation, satellite programming, loop systems, pump systems, and installation procedures

822 Turf and Ground Cover Management (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Studies turfgrasses, their characteristics, uses, and management. Covers soils, soil preparation, irrigation, fertilization, insects, weeds, disease, and special management factors. Requires field trips to supplement class work.

823 Advanced Turf and Ground Cover Management (3) CSU Lecture 2 hours; Laboratory 2 hours. Prerequisite: Plant Science 822.
Includes study of the following topics: equipment used with turfgrass management; soil aerification and thatch control irrigation, including drainage requirements and the use of wetting agents; sprinkler system design, checking and repair; disease, insect and weed identification and control; landscape shrubs and tree maintenance; record keeping and budgeting; personnel management and public relations.

826 Computer Landscape Design (3)
Lecture 1 hour.
Provide basic training in the theory and practices of computer aided drafting and design (CAD). Emphasis will be placed on drawing and design solutions as they apply to the landscape industry. Both operating and application software is discussed and utilized to produce design solutions.

840 Introduction to Pest Management (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Covers the identification and control of insect pests common to agricultural crops inclusive of ornamentals, the identification and the knowledge and control of common rodents and their effect upon agricultural production. Requires identification collection of insects by each student, and field work to supplement class and laboratory work.

845 Biological Pest Control (1)
Lecture 1 hour.
Natural approach to pest management based on understanding agroecosystems. Control of insects, mites and weeds using parasites and predators. Insectary operations, collection and release methods.

848 Training for Pest Control License (3)
Lecture 3 hours.
Covers the subject matter of the examination for Agricultural Pest Control Advisers License.

851 Vertebrate Pest Control (1)
Lecture 1 hour.
Vertebrate pests injurious to agricultural crops. Identification, life histories, and control methods. Covers gophers, ground squirrels, mice, rats, and others.

852 Residential Pest Control (1)
Lecture 1 hour
Identification of and control methods for common pests found around the homestead, including indoor and outdoor pests, ornamental, fruit, and vegetable pests.

896 Horticulture Projects (6) CSU
Laboratory 12 hours.
Involves planning, developing, and completing an individual horticultural production project under the guidance of a faculty advisor, on or off the college campus.

901 Natural Resources Conservation (3) $\triangle \mathrm{UC}$ :CSU
Lecture 3 hours.
${ }^{\Delta}$ UC Credit Limit: Plant Science 901 and Env. Sci. 2 maximum credit one course.
Surveys the development of the conservation ethic in the United States and abroad and human populations in relation to natural resources. Examines the ecological basis of conservation, major ecosystems, their energy flow and resource relationships. Discusses plant and animal population dynamics, pollution, and pest control. Covers current government programs, legislation, and activities of conservation organizations. Studies practical conservation procedures and research applicable to improving environmental resources including soil, water, forests, fisheries, wildlife (including endangered species), air, and open spaces.

942 Urban Forestry (2)
Lecture 1 hour; Laboratory 2 hours.
Studies the emerging interest in developing and managing urban forests. Includes the environmental uses and benefits of trees in the urban environment; street tree and park plantings; windbreaks and climate moderating effects. Covers the use of trees as an energy source including recycling and fuelwood concepts. Field trips required.

960 Wildland Fire Science (2) CSU
Lecture 2 hours.
Provides the NRM major with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques. Covers fire ecology, effects on other resources, and the use of prescribed fire.

## 975 California Native Plants (3) CSU

Lecture 2 hours; Laboratory 2 hours.
Native plants of Southern California. Emphasizes identification, plant community concepts, and native plant ecology. Covers the use of identification keys, classification concepts, and management implications of the various vegetation types. Intended primarily for NRM majors.

## Political Science

Also See Law 3 and Chicano Studies 80
1 The Government of the United States (3) UC:CSU (CAN GOVT 2) Lecture 3 hours.
May be offered as an honors section.
Studies the government of the United States as to historical background, constitutional background and development, structures and organizations, legal framework, basic concepts and key problems. Also provides an understanding of U. S. foreign policy, political parties and the electorate, civil liberties and civil rights, and issues facing the American people. A special study of California state and local government is a basic part of this course, providing for a strong civic involvement in self-government.

## 2 Modern World Governments (3) UC:CSU

Lecture 3 hours.
Studies a selected variety of major national states to secure a comparative picture of political philosophies, constitutions, political processes and governmental institutions. Emphasis is placed on those factors, geographic, historic, demographic and cultural, which contribute to differences in governmental experiences. Students will learn how to identify and apply concepts relevant to comparative political analysis.

## 7 Contemporary World Affairs (3) UC:CSU - RPT 1

Lecture 3 hours.
May be offered as an honors section.
Studies modern international relations and the forces which confront policy makers. Emphasizes current areas of crisis. Provides a basic understanding of the position of the United States in a tense and highly competitive political world.

## 14 Government and Politics in the Middle East (3) UC:CSU

 Lecture 3 hours.This course surveys the domestic, regional, and international factors which shape the political landscape of the Middle East. It identifies and explains sources of instability and violence in the region by focusing on the processes of state building and state disintegration. The course examines, in comparative context, the particular experiences of Middle Eastern countries to answer questions concerning the nature, roots, and historical evolution of the region's regimes, nationalism, leadership, and institutions. The approach is thematic, not chronological.

19 Women in Politics (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Examines from a woman's perspective political theories and public policie which shape the various possibilities and strategies for women's political participation in the United States as well as other selected countries.

37 Introduction to Political Sociology (3) CSU
Lecture 3 hours.
*UC transferability pending approval.
Same as Sociology 37. Credit not given for both..
This course is the sociological study of power, politics, and the state. In political sociology, students will examine the interrelation of politics and society by combining sociological analysis with analyses of political structure and political processes. Emphasis is placed on political sociological theories, elites and masses, the state, globalization, nationalism and social movements, media and interest groups, social and political institutions, capitalism, corporatism, and status.

42 Politics of Central and South America (3) CSU
Lecture 3 hours.
*UC transferability pending approval.
A survey of the political history, institutions, socio-political movements, geography, interest groups and political parties of Central and South America. To discuss and analyze the history and geography of Central and South America, followed by a survey of several nations as each nation experienced the impact of European Colonialism and the subsequent transition from colonialism, American imperialism, and 20th century authoritarianism into 21 st century democracies.

43 Politics of Mexico and Cuba (3) CSU
Lecture 3 hours.
*UC transferability pending approval.
A survey of the political history, institutions, socio-political movements, geography, interest groups and political parties of Cuba and Mexico. To discuss and analyze the history and geography of the Cuba and Mexico followed by a survey of the nations as each nation experienced the impact of European Colonialism and the subsequent transition from colonialism, American imperialism, and 20th century authoritarianism into 21st century democracies.

185 Directed Study - Political Science (1) †UC:CSU - RPT 2
285 Directed Study - Political Science (2) †UC:CSU
385 Directed Study - Political Science (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Political Science on a contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education - Political Science
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Psychology

1 General Psychology I (3) *UC:CSU (CAN PSY 2)
Required for Psychology majors.
Lecture 3 hours.
*UC Credit Limit: Credit given for either Psychology 1 or Psychology 6, not both.
May be offered as an honors section.
Presents an introduction to the vocabulary, methods, and problems of psychology. Discusses individual and social problems of everyday life through the viewpoints and methods of modern scientific psychology.

2 General Psychology II (3) UC:CSU (CAN PSY 10)
Lecture 3 hours.
Note: Physiological Psychology.
Prerequisite: Psychology 1 or 6 .
Provides an introduction to physiological psychology, which considers the functional and anatomical aspects of the nervous system as they apply to behavior. Physiological processes, structure and functions of sense organs, and the effects of natural and introduced blood transported substances are analyzed in terms of their influences on emotions, speech, intelligence, consciousness, sleep, motivational and psychosomatic relationships.

3 Personality and Social Development (3) CSU
Lecture 3 hours.
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Seeks to develop an understanding of personality dynamics and structure, theories of personality development, various behavior forms, and the psychological basis of emotional adjustment. Examines the concepts of mental health, and stresses the application of insights gained to life problems.

6 Human Behavior (3) *UC:CSU
Lecture 3 hours.
Note: Not recommended for students who have credit for Psychology 1, who are Psychology majors, or whose major requires Psychology 1. *UC Credit Limit: Credit given for either Psychology 1 or Psychology 6, not both.
Introduces the student to the methods and data of psychology as a behavioral science. Enables students to apply systematically obtained data and techniques to their own experience and to their relations with others.

11 Child Psychology (3) UC:CSU
Lecture 3 hours.
Recommended Preparation: Psychology 1 or 6
(Equivalent to Child Development 1. Credit not given for both courses.) Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Considers general and specific behavior patterns of children with a view to helping adults better understand the child's behavior and development.

12 Adolescent Psychology (3) UC:CSU
Lecture 3 hours.
Recommended Preparation: Psychology 1 or 6 .
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Discusses behavioral patterns in the second decade of life, exploring differences between male and female adolescents and how gender stereotypes are undergoing change. Topics include adolescents in the mainstream and those in the disadvantaged stratum; cross cultural differences in adolescents; psychological needs of the period and how they are met.

## 13 Social Psychology (3) UC:CSU

Lecture 3 hours.
Recommended Preparation: Psychology 1 or 6
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Studies individual behavior as it affects others and as it is affected by others. Main topics include: Aggression, Attitudes, Discrimination and Prejudice, Conformity and Obedience, Group Behavior, Interpersonal Relationships, Persuasion, Prosocial Behavior, "The Self", and Social Cognition.

## 14 Abnormal Psychology (3) UC:CSU

Lecture 3 hours.
Recommended Preparation: Psychology 1 or 6
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Acquaints the student with dynamics of personality, adjustment mechanisms, mental mechanisms, types of emotional disorders, various theories of their origin and development, and various therapeutic approaches.

16 Intimacy, Marriage, and Family Relationships (3) CSU
Lecture 3 hours.
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Presents a scientific study of human behavior and experience as expressed in love, marriage, and family relationships. Such topics as the psychological motives of couples, the emotional maturity of couples, the need for an adequate frame of reference for marriage, the development of interpersonal competence and effective partner and parentage relations are studied.

17 The Exceptional Child (3) CSU
Lecture 3 hours.
Prerequisite: Psychology 1 or 6.
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Considers personality, social, and cognitive development of exceptional children, that is, mentally retarded, emotionally disturbed, brain damaged, learning disabled, ADHD, sensory impaired, bilingual, creative, and gifted children. Discusses familial reaction, special educational problems and techniques, and self-image.

26 Power and Speed Reading (3) CSU - RPT 1 Lecture 3 hours.
Emphasizes the development of reading speed, comprehension, and vocabulary through practice with various audio-visual devices. Emphasis is placed on applying techniques to both study and leisure reading.

32 Psychology of Women (3) UC:CSU
Lecture 3 hours.
Recommended Preparation: Psychology 1 or 6 .
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
This course should provide a better understanding of the experiences of women through exploration of cultural stereotypes, family structure, female sexuality, women's health and self-esteem issues.

40 Psychology of Parent Child Relations (3) CSU Lecture 3 hours.
Presents a program for parents and others responsible for managing or raising children.

41 Life Span Psychology: From Infancy to Old Age (3) UC:CSU Lecture: 3 hours
Recommended Preparation: Psychology 1 or 6 .
An introduction to psychological development from infancy through old age, including genetic, physical, and social influences on perception, learning, memory, intelligence, personality, self-concept, and social roles; tasks, changes, and adjustments related to each phase of the life cycle.

52 Psychological Aspects of Human Sexuality (3) UC:CSU Lecture 3 hours.
Recommended Preparation: Psychology 1.
Note: Provider approved by the California Board of Nursing. The course awards 45 contact hours of continuing education for nurses.
Explores the psychological aspects of human sexuality. Addresses areas of sexual development and functioning as they have meaning for the individual as he/she develops his/her core awareness of self and sexual identity. Topics include male and female anatomy and function of sex organs; genesis of sexuality; myths and fallacies regarding the sexual process; its significance as a life function; dysfunction and variant behavior

60 Stress Management (3) CSU
Lecture 3 hours.
Examines methods of managing environmental, organizational, social and internal stress in an effort to promote more effective coping on the part of the individual in occupational, interpersonal and everyday life situations.

## 66 Introduction to Critical Thinking (3) UC:CSU

Lecture 3 hours.
This course covers the nature of critical thinking, models and strategies, common fallacies of reasoning, self regulation in the thinking process, application of critical thinking to specific areas, and evaluation of problem solving techniques.

## 73 Laboratory in Physiological Psychology (1) UC:CSU

Prerequisite: Psychology 2 or concurrent enrollment.
Introduces students to the writing of research reports and to nervous system anatomy through sheep brain dissections. Using computerized polygraph equipment explores the interrelationships between human brain and mind, e.g., differences in brain waves during relaxation and mental calculations.

## 185 Directed Study - Psychology (1) †UC:CSU - RPT 2

285 Directed Study - Psychology (2) †UC:CSU
385 Directed Study - Psychology (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Psychology on a contract basis under the direction of a supervising instructor.

## 911-941 Cooperative Work Experience Education - Psychology

 See Cooperative Work Experience Education$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Public Relations

## 1 Principles of Public Relations (3) CSU

Lecture 3 hours. Not offered each semester.
Evaluates public relations as a growing profession. Looks at the job opportunities for the practitioner, internal and external PR and the staff as well as the counselor tasks. Investigates relationships with the media, organizing and executing campaigns. The use of photography, graphics and marketing is studied.

## Reading

See course listing under English and Psychology 26.

## Real Estate

1 Real Estate Principles (3) CSU
Lecture 3 hours.
Introductory survey of the fundamentals and principles of real estate. Areas covered include legal descriptions, estates in land, methods of holding title, transfer of real property, encumbrances, contract law, real estate agency law, principles of real estate financing, real estate appraisal, escrow, construction, investment, California real estate license law, and landlord/tenant law. Career opportunities are also discussed. Applies toward the mandatory educational requirements for obtaining the California Real Estate Salesperson or Broker License.

3 Real Estate Practices (3) CSU
Lecture 3 hours.
Prerequisite: Real Estate 1.
This course covers the elements of day-to-day real estate sales and brokerage practices, emphasizing the selling process and the handling of a real estate transaction from listing to closing escrow. It offers guidelines in areas such as: listing agreements and purchase agreements, pricing property, qualifying the purchaser;, agency relationships, financing and other topics. Applies towards the mandatory educational requirements for obtaining the California Real Estate Salesperson or Broker License.

## Cooperative Work Experience Education - Business

See Cooperative Work Experience Education.

## Recreation

911-941
Cooperative Work Experience Education - Recreation
See Cooperative Work Experience Education.

## Service Learning

## 1 Introduction to Service Learning (1) CSU

Lecture 0.5 hour; Laboratory 1 hour.
Emphasizes the academics while nurturing a sense of social responsibility, ethics of service, and civic skills in students.

## 2 Field Work in Service Learning (1) CSU - RPT 3

Laboratory 3 hours.
This is an activity course in which students provide service to public and private non-profit agencies and charities. Emphasizes the academics while nurturing a sense of social responsibility, ethics of service, and civic skills in students. This course is integrated into and enhances the academic curriculum of the students, or the educational components of service learning courses.

## Sociology

1 Introduction to Sociology (3) UC:CSU (CAN SOC 2)
Lecture 3 hours.
May be offered as an honors section.
Presents an orientation to the field of sociology including such sociological concepts and issues as culture and subculture; development of the self; gender and age roles; social class and caste; groups, communities, collectivities, and organizations; deviance; racism; human institutions: family, religion, education, government, economics; and population change in society.

## 2 American Social Problems (3) UC:CSU (CAN SOC 4)

Lecture 3 hours.
Deals with the sociological identification and analysis of contemporary social problems in the United States. Analyzes aspects of social and cultural change which include issues of personal demoralization and social disorganization. This course is also designed to introduce the student to the significance of race, class, and gender in understanding social problems in the U.S. and around the world. The course will focus on sociological theories in examining social problems.

3 Crime and Delinquency (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Examines the nature and extent of crime and delinquency, theories of causation, types of juvenile and adult offenses, and efforts by society to cope with law violations. Includes programs for prevention, correction, and rehabilitation.

4 Sociological Analysis (3) UC:CSU (CAN SOC 8)
Lecture 3 hours.
Considers approaches to the scientific analysis of society and social institutions. Analyzes various methodological tools utilized in social science research and emphasizes clarification of the basic social science issues. Students will analyze and organize data collected in the field.

## 8 Sociology of Aging (3) UC:CSU

Lecture 3 hours.
This course examines the social structural influences on the lives of individuals and their families in an aging society. Emphasis is placed on aging as a social process, and the ways in which societies and groups are differentiated by age.

11 Race \& Ethnic Relations (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
This course examines the definitions, history, and experiences of ethnic and racial groups in this country. Attention is given to Blacks, Latinos, Native Americans, Asian Americans, and White Americans as well as women and religious minorities. What social, economic, and political factors affect majority-minority relations? What are the sources of discrimination? Of prejudice? Is social equality between different groups possible?

13 Society and Personality (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Studies the relationship between individual personality and the social milieu. Looks at research investigations and their findings. Devotes attention to child training and culture patterns in some western cultures compared to some non-western cultures.

15 Religion and American Sociology (3) CSU
Lecture 3 hours.
*UC transferability pending approval.
This course is designed to introduce students to the sociological analysis of religion. It will distinguish sociological perspectives on religion from alternative approaches. It will examine the connections between religion and other aspects of social life, such as gender, class, race/ethnicity and sexual identity. It will also analyze the relationship between religion and social continuity and change. Emphasis is placed on analyzing relevant current events involving religion.

21 Human Sexuality (3) CSU
Lecture 3 hours.
*UC transferability pending approval.
This course provides a comprehensive introduction to the social, cultural, historical, and religious influences that shape contemporary sexual values and normative beliefs in the United States. Explores the diversities of major paradigms of sociology toward sexual practices and behavior, including cross-cultural traditions, sexual attraction and response, sexual deviance, sexual orientations and the commercialization of love, sex, and eroticism.

28 The Family: A Sociological Approach (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
This course presents the family as a social institution. The course examines the structure and function of the modern family, as well as the historical influences on the development of the family. The course will highlight the family life cylce from mate selection through the issues of the aging family.

29 The U.S. and Terrorism (3) UC:CSU
Lecture 3 hours.
This class will examine the evolution of the U.S. presence in the Middle East and Central Asia. It will also explore the development of terrorism and the U.S. response

37 Introduction to Political Sociology (3) CSU
Lecture 3 hours.
*UC transferability pending approval.
Same as Political Science 37. Credit not given for both.
This course is the sociological study of power, politics, and the state. In political sociology, students will examine the interrelation of politics and society by combining sociological analysis with analyses of political structure and political processes. Emphasis is placed on political sociological theories, elites and masses, the state, globalization, nationalism and social movements, media and interest groups, social and political institutions, capitalism, corporatism, and status.

42 Educating the Educator (2)
Lecture 2 hours.
This course includes pedagogical issues which will help facilitate the development of courses for the ENCORE program. This course consists of educational theories/practices, teaching methodologies, learning styles, testing, evaluation, and curriculum development geared towards educating the older adult.

911-941 Cooperative Work Experience Education - Sociology See Cooperative Work Experience Education

## Spanish

## 1 Elementary Spanish I (5) UC:CSU (CAN SPAN 2)

Lecture 5 hours.
Recommended: Concurrent enrollment in Spanish 101.
Students with previous knowledge of Spanish should enroll in a higher level. Heritage speakers should enroll in Spanish 4, 5, or 6.
This is an introductory course designed for students who have had little or no recent formal instruction in Spanish. Upon successful completion of this course students are able to ask and answer questions in the present tense and understand and carry on simple conversations on familiar topics. This course is conducted primarily in Spanish.

2 Elementary Spanish II (5) UC:CSU (CAN SPAN 4) (SPANISH 1+2=CAN SPAN SEO A)
Lecture 5 hours.
Prerequisite: Spanish 1 with a grade of "C" or better, or equivalent high school preparation, or the appropriate skill level demonstrated in Spanish 1 by a successful score on the CAPE (Computer Assisted Placement Exam).
Recommended: Concurrent enrollment in Spanish 101.
Students with previous knowledge of Spanish should enroll in a higher level. Heritage speakers should enroll in Spanish 4, 5, or 6.
In this class students will learn to ask and answer questions in past tenses (including the preterit and imperfect), give commands, use present subjunctive, and be able to understand more complex conversations, speak and write with greater accuracy and detail. Proficiency in listening, speaking, reading, writing and the culture of Spanish-speaking countries is evaluated. Heritage speakers should enroll in Spanish 4, 5 or 6.

## 3 Intermediate Spanish I (5) UC:CSU (CAN SPAN 8 )

Lecture 5 bours.
Prerequisite: Spanish 2 with a grade of "C" or better, or equivalent high school preparation, or the appropriate skill level demonstrated in Spanish 2 by a successful score on the CAPE (Computer Assisted Placement Exam).
Recommended: Concurrent enrollment in Spanish 101.
Students with previous knowledge of Spanish should enroll in a higher level. Heritage speakers should enroll in Spanish 4, 5, or 6.
Upon entering this class students should be able to ask and answer questions in past tenses (including the preterit and imperfect), give commands, use present subjunctive, and be able to understand more complex conversations and speak and write with greater accuracy and detail. In this class students learn further grammatical constructions (past subjunctive, compound tenses and passive voice). Students begin to be able to understand and carry on more detailed conversations and speak and write with a moderate degree of fluency on a variety of cultural topics. Proficiency in listening, speaking, reading, writing and the culture of Spanish-speaking countries is evaluated. This course is conducted primarily in Spanish. Heritage speakers should enroll in Spanish 4, 5, or 6.

4 Intermediate Spanish II (5) UC:CSU (CAN SPAN 10) (SPANISH 3+4=CAN SPAN SEO B)
Lecture 5 hours.
Prerequisite: Spanish 3 with a grade of "C" or better, or equivalent high school preparation, or the appropriate skill level demonstrated in Spanish 3 (ability to ask and answer questions in the present and past tenses, give commands, use present and past subjunctive, compound tenses and passive voice. Students must be able to understand and carry on more detailed conversations and speak and write with a moderate degree of fluency on a variety of topics).
Recommended: Concurrent enrollment in Spanish 101.
Intermediate performance-based course whose major purpose is critical thinking and communicating. The five basic skills emphasized in this course are Listening, Speaking, Reading and Writing and cultural and literary awareness. Students expand their ability to perform the functions developed in Levels I-III as well as to develop the ability to understand literary issues, engage in close conversations with a critical mind, compare and contrast, explain and support an opinion and idea. This class is conducted in Spanish.

5 Advanced Spanish I (5) UC:CSU
Lecture 5 hours.
Prerequisite: Spanish 4 with a grade of "C" or better or the appropriate skill levels achieved in Spanish 4.
Note: Concurrent enrollment in Spanish 8 is strongly recommended for non-native speakers.
Recommended for native speakers, Spanish majors, and international business majors.
Advanced performance-based course whose major purpose is critical thinking and communicating. The five basic skills emphasized in this course are Listening, Speaking, Reading and Writing and cultural and literary awareness. Students expand their ability to perform the functions developed in Levels I-IV as well as to develop the ability to understand literary issues engage in close conversations with a critical mind, compare and contrast, explain and support an opinion and idea and convince and persuade. This class content embraces concepts of broader cultural significance, including issues, such as environment, human rights, abstract ideas concerning art, literature, politics and society. This class is conducted in Spanish.

## 6 Advanced Spanish II (5) UC:CSU

Lecture 5 hours.
Prerequisite: Spanish 4 with a grade of "C" or better, or the appropriate skill levels achieved in Spanish 4.
Note: Concurrent enrollment in Spanish 8 is strongly recommended for non-native speakers.
Recommended for native speakers, Spanish majors and international business majors.
Advanced performance-based course whose major purpose is critical thinking and communicating. The five basic skills emphasized in this course are Listening, Speaking, Reading and Writing and cultural and literary awareness. Students expand their ability to perform the functions developed in Levels I-IV as well as to develop the ability to understand literary issues, engage in close conversations with a critical mind, compare and contrast, explain and support an opinion and idea and convince and persuade. This class content embraces concepts of broader cultural significance, including issues, such as environment, human rights, abstract ideas concerning art, literature, politics and society. This class is conducted in Spanish.

## 8 Conversational Spanish (2) CSU - RPT 3

Lecture 2 hours.
Prerequisite: Spanish 2 with a grade of " $C$ " or better, or equivalent high school preparation, or the appropriate skill level demonstrated upon completion of Spanish 2.
Recommended: Concurrent enrollment in Spanish 101.
This course is offered as a credit/no credit course only.
This is a conversation course designed for students who are able to ask and answer questions in the present and past tenses, give polite commands, use present subjunctive, and be able to understand basic conversations. Upon successful completion of this course students will begin to be able to understand and carry on more detailed conversations and speak with a moderate degree of fluency on a variety of topics. Significant amounts of time is spent engaging in oral communication and never in translation.
The exclusive use of Spanish in the classroom from the beginning is done by memorization and role playing of dialogues, and prediction exercises. Students will be assigned four hours per week of homework including one mandatory hour in the Learning Center (TLC 1613).

## 9 Hispanic Civilization (3) UC:CSU

Lecture 3 hours.
This course is a cultural and literary history and an interpretation of Spanish civilization from its earliest beginnings to the present, with particular attention paid to Spanish art, literature, architecture and music. Few cultures in the world possess a comparable richness and continuity as demonstrated by the contributions of Romans, Jews, and Moors. Emphasis will be placed on the discussion of the formation of a Spanish identity and cultural consciousness through such institutions as the Inquisition, the Catholic Church, the Monarchy and the military; in addition, we will analyze the revolutionary currents of various political and social philosophies that fought the radically conservative tendencies of the aforementioned religious and political institutions.

10 Latin American Civilization (3) UC:CSU
Lecture 3 hours.
Same as History 23. Credit not given for both courses.
A study of the diverse cultures of Spanish and Portuguese speaking countries and peoples, together with the themes, institutions, beliefs, and symbols that have endured through time and their quest to define and understand their identity in their actions, in their memories of the past, and in their dreams of the future.

11 Great Books of Spanish Literature (3) UC:CSU
Lecture 3 hours.
An interpretation of Spain and Spanish culture presented through a survey of its literature, with selected readings of important writers in their historical setting, from the foundational myth of "El Cid" to writers raised during the dictatorship of Franco in contemporary Spain.

12 Contemporary Mexican Literature (3) UC:CSU
Lecture 3 hours.
Humanities Credit.
Note: Readings are in English translation. Knowledge of the Spanish language is not required.
A course exploring Mexican cultural identity through great works of Mexican literature spanning the late 19th and early 21 th centuries. The works of world famous authors such as Juan Rulfo, Octavio Paz, Elena Poniatowska, and Mariano Azuela will be studied in depth.

15 Great Books of Latin American Literature (3) UC:CSU
Lecture 3 hours.
Humanities Credit.
May be offered as an honors section.
Note: Readings are in English translation. Knowledge of the Spanish language is not required.
A course that studies the diverse cultures of Latin America through its greatest literary works, covering the Conquest to contemporary times. Great movements in Latin American literature will be covered, such as Romanticism, Realism, Naturalism, and the 'magic realism' of the socalled Latin American 'boom' novels of the 1960s and 1970s. Great authors such as Gabriel Garcia Marquez, Octavio Paz, Carlos Fuentes, Isabel Allende, Jorge Luis Borges and others will be analyzed in depth.

## 16 Mexican Civilization (3) UC:CSU

Lecture 3 hours.
A study of the diverse cultures of Mexico from Pre-Columbian to present times, including its culture, history, near-constant battles for freedom, sovereignty and independence.

21 Fundamentals of Spanish I (3) *UC:CSU
${ }^{*}$ UC credit limit: maximum 5 units for Spanish 21 and 22 combined. Lecture 3 hours.
Note: Spanish 21 and 22 are equivalent to Spanish 1. Credit is given for either Spanish 1 or Spanish 21 and 22, not both.
Introductory course for students who have had little or no recent formal education in Spanish. Students learn to ask and answer questions in the present tense and understand and carry on simple conversations on familiar subjects. Proficiency in listening, speaking, reading, writing, and culture of Spanish-speaking countries is evaluated. Course covers chapters 1-3 of Espanol a lo vivo. Class assignments will require one hour per week in The Learning Center (TLC 1613).

22 Fundamentals of Spanish II (3) *UC:CSU
*UC credit limit: maximum 5 units for Spanish 21 and 22 combined. Lecture 3 hours.
Prerequisite: Spanish 21.
Note: Spanish 21 and 22 are equivalent to Spanish 1. Credit is given for either Spanish 1 or Spanish 21 and 22, not both.
Continuation of introductory course for students who have had little or no recent formal education in Spanish. Students learn to ask and answer questions in the present tense and understand and carry on simple conversations on familiar subjects. Proficiency in listening, speaking, reading, writing, and culture of Spanish-speaking countries is evaluated. Course covers chapters 4-6 of Espanol a lo vivo. Class assignments will require one hour per week in The Learning Center (TLC 1613). Students must pass exit proficiency exam (CAPE) with a score of 295 or better to receive credit for the course.

## 24 Spanish for Medical Personnel (3) CSU RPT 1

Note: This course is taught in 1 unit modules and is offered as a creditno credit course only.
Provider approved by the California Board of Nursing. Each of the 1-unit modules awards 15 contact hours of continuing education for nurses.
A basic course in Spanish for health service personnel serving the Spanish speaking community. Some knowledge of the basics of Spanish grammar and usage is recommended.

25 Spanish American Short Story in Translation (3) UC:CSU
Lecture 3 hours.
Humanities Credit.
Note: Readings are in English translation. Knowledge of the Spanish language is not required.
This course studies the compelling genre of the short story in the context of Latin American culture, history, politics and multi-national identity formation. Beginning during the time of the Conquest to the contemporary period, various short stories from around Latin America exemplify the stunning diversity of themes, styles, characters and the influence of various literary, artistic and social movements, such as Romanticism, Modernism, Naturalism, Surrealism and Expressionism. This course emphasizes reading and writing skills, and requires in-class essays and a longer, research paper.

26 Understanding Latin America through Film (3) UC:CSU Lecture 3 hours.
Humanities credit.
This course looks at the prolific output of films from Latin America that emphasize social themes, particularly in the area of social justice and political conflict. Through film, the diverse countries of Latin America express their resistance to and engagement with repressive social and political practices that far too often seek to stifle the creative, marginalized voices of the striving individual. In addition to great films and directors of the past, we will study in depth the recent work of such gifted directors as Guillermo del Toro and Alejandro Gonzalez Inarritu.

27 Cultural Awareness Through Advanced Conversation (3) UC:CSU Lecture 3 hours.
Humanities credit.
Prerequisite: Spanish 3 with a grade of "C" or better.
A course emphasizing fluency in both conversation and basic cultural knowledge of the Hispanic world, focusing mainly on contemporary social, cultural and political issues. Students will read a wide variety of texts for class discussion, including short stories, newspapers, magazines, essays and specialized Web pages addressing various aspects of Hispanic culture and contemporary issues. Also included in the course are guest speakers, community service projects, and student presentations.

48 Introduction to Spanish Translation I (3) CSU Lecture 3 hours.
Prerequisite: Spanish 4 or equivalent skills.
This course is an introduction to the theory, methods, techniques, and problems involved in translation from Spanish to English. (There is also some translating from English to Spanish, and some elementary interpretation from Spanish to English). The emphasis is on general material taken from journals and newspapers, with some consideration from the fields of business, literature, and the social sciences. Required for students interested in Spanish Certificate in Translation.

49 Introduction to Spanish Translation II (3) CSU Lecture 3 hours.
Prerequisite: Spanish 48 with a grade of " $C$ " or better.
Note: Course taught in English. For students whose career options require bilingual skills.
Continues the study of basic translation theory with an emphasis on the contrastive aspects of English and Spanish grammars. Practical application of basic translation techniques and procedures to texts of a general nature. Required for students interested in Spanish Certificate in Translation.

## 65 Mexican Literature and Culture (3) UC:CSU

Lecture 3 hours.
This course will familiarize the student with Mexican civilization and literature, from the Spanish conquest to modern Mexico, as revealed through the tales of its people, art, music and writings.

101 Spanish Language Laboratory (1) CSU - RPT 3
Laboratory 2 hours.
Note: Recommended for all students enrolled in Spanish 1, 2, 3, 4, and 8. This is a credit/no-credit course. Students receive one unit of college credit (with no letter grade) by spending at least 32 hours over the semester using the equipment and regularly handing in the lab workbook assignments to their instructor. This language workshop uses multi-media (video, audio and computers) to enhance instruction. Students must be currently enrolled in a Spanish language course.

## 185 Directed Study - Spanish (1) †UC:CSU - RPT 2

285 Directed Study - Spanish (2) †UC:CSU
385 Directed Study - Spanish (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Spanish on a contract basis under the direction of a supervising instructor.
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Special Education

## See also Learning Foundations and Learning Skills

3 Computer-Directed Writing Skills (2) (NDA) - RPT 3
Lecture 1 hour; Laboratory 2 hours.
Formerly Learning Skills 21
Prerequisite: Learning Skills 185, Special Education 85.
Students will master precomposition and composition skills in order to write simple narrative/informative essays. Using IBM-based computer systems, learning disabled students will develop basic composition skills and demonstrate mastery of grammar, punctuation and spelling.

21 Reading Clinic (3) (NDA) - RPT 3
Lecture 3 hours.
Assists the hearing-impaired student in developing sight vocabulary, reading comprehension, and word attack skills. Provides opportunity for increasing speed and efficiency in reading.

24 Practical Mathematics for the Hearing Impaired (3) (NDA) - RPT 3
Lecture 3 hours.
Covers mathematical concepts up to and including some fundamental algebra. The concepts of fractions, decimals, percent, measurement, and word problem attack skills will be emphasized.

85 Adaptive Word Processing (1) (NDA) - RPT 1
Laboratory 2 hours.
Prerequisite: Knowledge of keyboarding.
Provides hands-on training in basic word processing skills for students who because of their disability would otherwise be unable to access the computer. This course is not intended to train students for a job in word processing.


101 Oral Communication I (3) UC:CSU (CAN SPCH 4)
Lecture 3 hours.
May be offered as an honors section.
Recommended Preparation: Eligibility for English 28.
Offers training in the theory of speech communication and the practice of effective preparation and delivery of structured oral presentations.

103 Business and Professional Speaking (3) CSU
Lecture 3 hours.
This course enables students to apply speech communication skills to business settings. Students complete structured written assignments and oral presentations relevant to business communication.

104 Argumentation (3) UC:CSU (CAN SPCH 6)
Lecture 3 hours.
May be offered as an honors section.
Recommended Preparation: Eligibility for English 28.
Explores the critical thinking process, emphasizing the use of logic, reasoning, and evidence in the presentation and analysis of sound arguments. Students will participate in debates.

111 Voice and Articulation (3) CSU
Lecture 3 hours.
This introductory course teaches effective voice production, accurate American English pronunciation and effective sound identification. The primary focus of the course is on developing the awareness and production of correct vowel and consonant articulation through the use of phonetic practice. The course covers vocabulary, phonetic and diacritical symbols, alphabet and the vocal mechanism. The development of one's natural voice coordinated with proper breathing techniques through group and individual exercises is emphasized through sense-memory techniques.

113 English Speech as a Second Language (3) CSU - RPT 1 Lecture 3 hours.
Stresses speaking of English, pronunciation, idiomatic expressions, phraseology; rhythmic inflections, grammar, vocabulary building, and oral composition. The course is designed for English second language learners with varying levels of English ability.

121 The Process of Interpersonal Communication (3) UC:CSU (CAN SPCH8)
Lecture 3 hours.
Recommended Preparation: Eligibility for English 28.
This lecture/activity/discussion course examines the theory, scope and purpose of human communication in interpersonal environments. Students participate together in oral exercises.

122 Communication Across Cultures (3) UC:CSU Lecture 3 hours.
Surveys the verbal and non-verbal ways cultures of the world communicate. It focuses on communication fundamentals, language, cultural origins, and methods of handling intercultural communication conflicts. Students will participate in researched oral discussions of selected cultural groups.

185 Directed Study - Speech Communication (1) †UC:CSU - RPT 2
285 Directed Study - Speech Communication (2) †UC:CSU
385 Directed Study - Speech Communication (3) †UC:CSU Conference 1 hour per unit.
Prerequisite: Speech Communication 101, 102, or 104.
Allows students to pursue directed, individualized study in the field of Speech Communication on a contract basis under the direction of a supervising instructor.

## 911-941

Cooperative Work Experience Education -Speech Communication
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.

## Statistics

1 Elementary Statistics I for the Social Sciences (3) *UC:CSU (CAN PSY 6)
Lecture 3 hours.
Prerequisite: Mathematics 125 or its college equivalent with a grade of " $C$ " or better.
Note: Students may be required to present proof of completion of Intermediate Algebra or its equivalent at the first class meeting.
Covers both descriptive and inferential statistics. Topics include methods used to collect and describe data, central tendency, variability, the normal curve, correlation, prediction, sampling distributions, probability and hypothesis testing. Emphasis is on conceptualization as well as data analysis.

7 Understanding and Applying Statistics (4) *UC:CSU Lecture 4 hours.
May be offered as an honors section.
Prerequisite: Mathematics 125 or its college equivalent with a grade of " $C$ " or better.
Note: Recommended for honors students and behavioral science majors. Using the computer and Statistical Package for the Social Sciences software (SPSS) to solve problems, this course emphasizes the sampling, interpretation and evaluation of statistical data. Topics include: measures of central tendency, frequency distributions, hypothesis testing, nonparametric tests including Chi square and the sign test, plus parametric tests (" z ", " t ", and ANOVA).

185 Directed Study - Statistics (1) CSU - RPT 2
285 Directed Study - Statistics (2) CSU
385 Directed Study - Statistics (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Statistics on a contract basis under the direction of a supervising instructor.

* UC Credit Limit: Mathematics 227, 229, Statistics 1, 7; maximum credit, one course.


## Supervision

1 Elements of Supervision (3) CSU
Lecture 3 hours.
Introduces in general terms the total responsibilities of a supervisor in industry. Topics include organization, duties and responsibilities, human relations, grievances, training, rating promotion, quality-quantity control and management- employee relations.

## Technical Theater

342 Technical Stage Production (2) UC:CSU - RPT 3
Laboratory 6 hours.
Formerly Technical Theater 99.
Same as Theater 342. Credit not given for both courses.
Recommended Preparation: Theater 300.
Provides work in all aspects of play production in terms of study and laboratory practice, including stage managing, lighting, scene construction, painting, designing, and the use of stage equipment. Offers experience in stage crew and technical production.

## Theater

100 Introduction to the Theater (3) UC:CSU (CAN DRAM 18) Lecture 3 hours.
A survey and theater appreciation course for both majors and non-majors. The class explores what theater is all about, what goes on in theater, and what it means from an audience perspective. The course seeks to supply the student with insights into the theatrical processes in order to give him or her a wider basis for evaluation and enjoyment. All aspects of play production are explored: playwriting, producing, directing, acting, criticism, theater architecture, set design, costume design, lighting design, and the role ofthe audience.

110 History of the World Theater (3) UC:CSU Lecture 3 hours.
Studies the development of the theater from earliest periods to the present. Play readings, films, and historical trends are discussed.

125 Dramatic Literature (3) UC:CSU
Lecture 3 hours.
Same as English 213. Credit not given for both courses.
Surveys the major dramatic forms in the Western World from the early beginnings to the present time. Play reading for pleasure, appreciation, and interpretation are stressed. Analysis and criticism follow.

225 Beginning Direction (3) UC:CSU
Lecture 3 hours.
Recommended Preparation: Theater 270 and one technical theater class (Theater 300 through 400).
Leads the student from the basic script through all the elements necessary to get the play on stage: interpretation, casting, scheduling, movement, blocking, business, pace and timing. Provides firm guidance for beginning directors in the technical handling of a script from preparation of a prompt script to working out of technical plots.

## 230 Acting for the Camera (3) UC:CSU

Lecture 1 hour; Laboratory 4 hours.
Prerequisite: Theater 270
Introduction to acting skills for the camera utilizing improvisational techniques, character building and in class performance of memorized prepared work, dramatic, comedic and commercial, for the camera.

## 232 Play Production (2) UC:CSU - RPT 3

Laboratory 6 hours.
Prerequisites: Theater 342 and 411 (may be taken concurrently) Recommended Preparation: Theater 270.
Required audition will be held the first week during which casts are selected for faculty directed productions.
Represents the culmination of the student's acting experience. Here students demonstrate their ability to perform in fully staged productions for audiences of the general public, and are encouraged, wherever possible, to develop from minor roles to the creation of more demanding characterizations.

## 240 Voice and Articulation for the Theater (3) UC:CSU (CAN DRAM 6)

Lecture 3 hours.
Deals with the fundamentals of good voice, good speech, and dynamic vocal expressiveness. Toward these goals the following elements are studied: breathing, posture, resonance, loudness, timing, pitch, and clear articulation.

250 Children's Theater Production (2) CSU - RPT 3
Laboratory 6 hours.
Prerequisites: Theater 342 or 411 (may be taken concurrently).
Required auditions are held the first week of class, during which casts are selected for faculty directed productions.
This class is identical to Theater 232, the single exception being the kind of material presented.

## 262 Special Projects (2) †UC:CSU - RPT 3

Laboratory 4 hours.
Students are given opportunity to plan, rehearse, stage and produce projects for presentation before student audiences, or otherwise increase knowledge and experience in dance theater.

265 Movement for the Actor (2) UC:CSU - RPT 1
Lecture 1 hour; Laboratory 2 hours.
Selections from plays, poetry and prose are utilized to train the actor to approach the text from a "movement" point of view. Exercises and improvisations in sensory-motor awareness lead to flexibility, balance, energy and expressiveness on stage.

## 270 Beginning Acting (3) UC:CSU (CAN DRAM 8) <br> Lecture 3 hours.

Provides instruction in the basic techniques of acting. Prepares the student for subsequent acting classes, and meets one of the requirements for the production class.

271 Intermediate Acting (2) UC:CSU (CAN DRAM 22)
Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Theater 270.
Provides more advanced instruction in acting fundamentals through the medium of scene study. Greater depth is expected in both characterization and script analysis.

## 273 Advanced Acting (2) UC:CSU - RPT 1

Lecture 1 hour; Laboratory 2 hours.
Prerequisite: Theater 271.
Continues the in-depth work of Intermediate Acting utilizing scenes from mature works of drama. Presentational skills are sharpened as the student is readied for performance.

279 Musical Theatre (2) *UC:CSU - RPT 3
Lecture 1 hour; Laboratory 2 hours.
A survey of Musical Theatre with emphasis on the development of singing, dancing, movement, and acting skills and techniques. Opportunities will be offered to apply these skills and techniques before a student audience.

280 Musical Theatre Workshop (3) *UC:CSU - RPT 3
Laboratory 6 hours.
Practical experience using techniques and principles of acting in the musical theatre will be presented before an audience. Emphasis will focus on the development of acting, singing, and movement skills.

291 Rehearsals and Performances (1) UC:CSU - RPT 3
Laboratory 3 hours, plus rehearsals and performances.
Recommended Preparation: Theater 270, 342, or equivalent.
Auditions and interviews are held the first week of classes, during which casts and technical crews are selected for productions.
In this course students are actively involved in the production of plays for college and public performances. Primary emphasis is on the ability to perform acting and stage crew assignments. Students may also work in the areas of publicity, house management, technical theater, or costuming.

292 Rehearsals and Performances (2) UC:CSU - RPT 3
Laboratory 6 hours, plus rehearsals and performances.
Recommended: Theater 270, 342, or equivalent.
Auditions and interviews are held the first week of classes, during which casts and technical crews are selected for productions.
In this course students are actively involved in the production of plays for college and public performances. Primary emphasis is on the ability to perform acting and stage crew assignments. Students may also work in the areas of publicity, house management, technical theater, or costuming.

300 Introduction to Stage Craft (3) UC:CSU (CAN DRAM 12) Lecture 3 hours.
Through lecture and laboratory demonstration, covers all phases of scene construction, painting, mounting and running of stage scenery. Also covers the use of sound, lighting equipment, and stage properties. Additional instruction is given in stage terminology and the organization and management of stage crew activities.

310 Introduction to Theatrical Lighting (3) UC:CSU Lecture 3 hours.
Presents the basic principles of theatrical lighting, designed to familiarize the student with the equipment, the medium, and the design functions of stage lighting.

315 Introduction to Theatrical Scenic Design (3) UC:CSU
Lecture 3 hours.
Prerequisite: Theater 300.
Covers training and practice in the problems of designing for stage including construction and painting techniques, development of the design concept, budgeting, and modeling the design.

320 Computer Aided Drafting and Designing for the Theatre (3) May be offered as Theater 99.
Lecture 1 hour; Laboratory 2 hours
This course explores the techniques and skills needed to express the art of design in lighting, scenery, sound and costume in the theatre through the medium of the computer. This course focuses primarily on the computer drafting program known as vectorworks.

340 Theatre Management-On and Off Stage (2)
May be offered as Theater 99.
Lecture 2 hours.
This course exposes the students to the knowledge and skills necessary to stage manage a theatrical production, and an overview of theatre administration.

411 Costuming for the Theater (3) UC:CSU - RPT 2
Lecture 2 hours; Laboratory 2 hours.
Note: Meets prerequisite for Theater 232 and 250.
Surveys theatrical costuming as a craft and as a design art. Introduces design principles, research methods, pattern and construction techniques, sewing equipment use and maintenance, and the functions of costume personnel in production work. Lab work may include assignments on current department productions.

450 Beginning Stage Make-Up (2) UC:CSU
Lecture 1 hour; Laboratory 3 hours.
Introduces students to the basic techniques and materials of theatrical make-up, and gives practice in its application. Students will learn to apply straight, corrective, middle age, old age, and fantasy make-up. The application of facial hair, scars and bruises and nose putty will also be studied. Lab work may include assignments on current department productions.

## 185 Directed Study - Theater (1) †UC:CSU - RPT 2

## 285 Directed Study - Theater (2) †UC:CSU

385 Directed Study - Theater (3) $\dagger$ UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Theater on a contract basis under the direction of a supervising instructor.

911-941
Cooperative Work Experience Education - Theater
See Cooperative Work Experience Education
$\dagger$ UC Credit for Directed Study and Variable Topics courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs AFTER transfer and may include recommendations from faculty.
UC Credit Limits: Theater 279 and Music 776 combined; maximum credit, one course. Theater 280 and Music 777 combined; maximum credit, one course.

## Welding

See course listings under Industrial Technology - Welding


## Faculty

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Means, Daniel G.; 1989-1991; Professor of Educational Guidance; President of the College
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Meyers, Paul A.; 1974-2005; Professor of Biology
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Muir, John K.; 1964-1989; Lecturer in Physical Education
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Oliver, Tom; 2000-2006; Vice President, Development
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Paulman, Jack S.; 1967-1977; Professor of Computer Science
Pence, Robert L.; 1969-1995; Professor of Anthropology
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Phifer, Elaine E.; 1989-2002; Professor of Nursing
Pickard, Dean; 1983-2004; Professor of Philosophy/Humanities Professor of Physical Education
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Pinkston, Howell; 1970-2001; Professor of Art
Ponsor, Judith; 1980-2003; Professor of Nursing
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Raboy, Joseph; 1968-1989 Professor of English
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Renzi, Joseph; 1971-1983; Professor of Vocational Education
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Rinnander, Elizabeth A.; 1981-2004; Associate Dean, Academic Affairs
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Rosen, William J.; 1976-1988; Assistant Professor of Mathematics
Rosenberg, Isadore; 1965-1990; Professor of Special Reading/Psychology
Rosenthal, Marilyn L.; 1987-1989; Professor of Nursing
Ross, Bernice; 1986-2006; Professor of Psychology
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Scheibel, Barbara G.; 1976-1989; Professor of Special Reading/English
Scheibel, Robert W.; 1969-1989; Professor of Journalism
Schneider, David; 1970-1984; Professor of Sociology
Schneiderman, Beth; 1971-1991; Professor of English
Schulman, Benson R.; 1966-1989; Professor of English
Schulman, Florence W.; 1968-1987; Professor of Health, Physical Education, Leisure Management
Schulman, Sandra; 1972-1989; Director, Study Skills Center; Professor of Special Reading/English
Sears, Malcolm G.; 1976-2005; Professor of Natural Resources Management
Seigel, David; 1976-1996; Professor of Business
Shaver, James R.; 1987-1995; Professor of Sociology
Shaw, William L.; 1958-1995; Professor of Electronics
Shepherd, Henny B.; 1970-2005; Professor of Physical Education
Sherman, Arthur A.; 1984-2002; Professor of Computer Science and Information Technology
Shocket, Sol; 1959-1992; Professor of Economics
Siemens, David F., Jr.; 1966-1986; Professor of Philosophy
Silver, Constance R.; 1969-1988; Counselor
Sirakides, Leo N.; 1973-1995; Professor of Business

Siskin, Burton F.; 1986-1995; Professor of Anthropology
Slattery, Eugene R.; 1950-1993; Professor of Mathematics

Smith, Richard A.; 1986-2003 Professor of Psychology
Smith, Thomas; 1964-1987; Professor of Library Services
Smith, Walter Henry; 1956-1995; Professor of Art
Snooks, A. Nancy (1971) Professor of Art
Soccoccio, Joseph M.; 1977-1999; Professor of Photography Department Chairperson, Media Arts
Solomon, Marcia S.; 1976-2004; Professor of Nursing Department Chairperson, Nursing
Stanley, Kenneth; 1966-2002; Professor of Physical Education
Sutherland, Miriam M.; 1976-1989; Professor of Nursing
Thomas, Louise B.; 1975-2001; Professor of Nursing
Thompsen, Terry; 1966-2006; Professor of Business Administration
Thomsen, Mary Joan M.; 1964-1999; Professor of Psychology
Tontsch, John W.; 1965-1995; Professor of Computer Science and Information Technology
Topik, Fred S.; 1959-1977; Professor of Foreign Languages
Toyoshima, Joe; 1964-1989; Lecturer in History
Treadwell, Terence J.; 1986-1992; Associate Professor of Psychology
Trinchero, Bart L.; 1968-2000; Professor of Industrial Technology
Turney, Kay E.; 1965-1995; Professor of Physical Education Department Chairperson, Physical Education/Women
Van Auker, Alfred J.; 1961-1986; Professor of Art
Van Vlaenderen, Bernard; 1976-1994; Professor of Mathematics
Van Voorhis, James C.; 1964-1989; Professor of Architecture
Vernon, James Y.; 1971-1986; Professor of Meteorology
Vree-Brown, Marion F.; 1958-1985; Professor of Music
Waldron, Jill R.; 1971-1998; Professor of English
Walker, John Michael; 1973-1989; Lecturer of Horticulture
Warren, James A.; 1970-2005; Professor of Music
Wechsler, Ron; 1978-2006; Professor of Animal Science
Whitman, Orene; 1972-1989; Professor of Nursing
Wilkinson, Jean; 1964-1984; Associate Professor of English
Williams, Charles R.; 1974-1995; Assistant Professor of Physical Education
Williams, Robert L.; 1969-1980; Associate Professor of History
Wilson, Charles C.; 1961-1984; Professor of Journalism
Wilson, Gussie Edwards; 1964-1975; Professor of Business
Woods, Dorris S.; 1989-1995; Associate Professor of Nursing
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## GLOSSARY OF TERMS

Academic Probation - After attempting 12 units, a student whose cumulative grade point average (beginning Fall 1981) falls below 2.00 is placed on academic probation. A student whose cumulative grade point average falls below 2.00 for three consecutive semesters is subject to dismissal from the College.
Academic Renewal - Removal of substandard grades from a student's academic record for purposes of computing the grade point average; special conditions must be met.
Add Permit - A card issued by an instructor upon presentation of a valid Registration/Fee Receipt which permits the student to add the class if the instructor determines that there is room. Enrollment in the class is official only if the Add Permit is processed by Admissions \& Records before the published deadline.
Admissions and Records - The office and staff that admits a student and certifies his or her record of college work; also provides legal statistical data for the College.
Administration - Officials of the College who direct and supervise the activities of the institution.

Application for Admission - A form provided by the College on which the student enters identifying data and requests admittance to a specific semester or session. A student may not register and enroll in classes until the application has been accepted and a Permit to Register issued.
Assessment Tests - Tests given prior to admission which are used to determine the student's assignment to the most appropriate class level.
A.S.O. - Organization to which all enrolled students are eligible to join called the Associated Student Organization.
Associate Degree (A.A. or A.S.) - A degree (Associate in Arts or Associate in Science) granted by a community college which recognizes a student's satisfactory completion of an organized program of study consisting of 60 to 64 semester units.
Bachelor's Degree (B.A., A.B., B.S.) - A degree granted by a four-year college or university which recognizes a student's satisfactory completion of an organized program of study consisting of 120 to 130 semester units.
Certification of Completion - A certificate granted by a community college upon satisfactory completion of a formal program of vocational study of 16 to 45 units.
Community College - A two-year college offering a wide range of programs of study, many determined by local community need.
Concurrent Enrollment - Enrollment in two or more classes during the same semester. Also, enrollment of a student attending a K-12 school and a community college at the same time.
Continuing Student - A student registering for classes who attended the College during one of the previous two semesters. A student registering for the fall semester is a continuing student if he or she attended the College during the previous spring or fall semesters; attendance during the summer session is not included in this determination.
Corequisite - A requirement that must be satisfied at the same time a particular course is taken; usually a corequisite is concurrent enrollment in another course.
Counseling - Guidance provided by professional counselors in collegiate, vocational, social, and personal matters.
Course - A particular portion of a subject selected for study. A Course is identified by a Subject Title and Course Number; for example: Accounting 1.
Course Title - A phrase descriptive of the course content, for example the course title of Accounting 1 is "Introductory Accounting I."
Credit by Examination - Course or unit credit granted for demonstrated proficiency through testing.

Credit/No Credit - A form of grading whereby a student receives a grade of CR or NCR instead of an A, B, C, D, or F. A CR is assigned for class work equivalent to a grade of C or above.
Dismissal - A student on academic or progress probation for three consecutive semesters may be dismissed from the College. Once dismissed the student may not attend any college within the Los Angeles Community College District for a period of one year and must petition for readmittance at the end of that period of time.

Educational Program - A planned sequence of credit courses leading to a defined educational objective such as a Certificate of Completion or Associate Degree.
Electives - Courses which a student may choose without the restriction of a particular major program-curriculum.

Enrollment - That part of the registration process during which students select classes by ticket number to reserve a seat in a selected class and be placed on the class roster. A student may also enroll in a class by processing an Add Permit obtained from the instructor of the class.
Full-time Student - A student may be verified as a fulltime student if he/she is enrolled and active in 12 or more units, during the Fall or Spring semester.
General Education Requirements - (also called Breadth Requirements). A group of courses selected from several disciplines which are required for graduation.
Grade Points - The numerical value of a college letter grade: A-4, B-3, C-2, D-1, F-0.
Grade Point Average - A measure of academic achievement used in decisions on probation, graduation, and transfer. The GPA is determined by dividing the total grade points earned by the number of attempted units.
Grade Points Earned - Grade points times the number f units for a class.

INC - Incomplete. The administrative symbol "I" is recorded on the student's permanent record in situations in which the student has not been able to complete a course due to circumstances beyond the student's control. The student must complete the course within one year after the end of the semester or the "I" reverts to a letter grade determined by the instructor. Courses in which the student has received an Incomplete ("I") may not be repeated unless the " I " is removed and has been replaced by a letter grade. This does not apply to courses which are repeatable for additional credit.

IP - In Progress. An "IP" is recorded on the student's permanent record at the end of the first semester of a course which continues over parts or all of two semesters. The grade is recorded at the end of the semester in which the course ends
Lower Division - Courses at the freshman and sophomore level of college.
Major - A planned series of courses and activities selected by a student for special emphasis which are designed to teach certain skills and knowledge.
Matriculation - A process designed to assist students to achieve their educational goals.
Minor - The subject field of study which a student chooses for secondary emphasis.
NDA - Non-degree applicable
Non-penalty Drop Period - The first four weeks of a regular semester during which a student's enrollment in a class is not recorded on the student's permanent record if the student drops by the deadline. This deadline will be different for short-term and summer session courses.
Parent Course - A course which may be offered in modules. Credit for all modules of a parent course is equivalent to credit for the parent course. Parent courses are all courses without letters in the course number field.
Permit to Register - A form listing an appointment day and time at which the student may register. The permit is issued to all new students upon acceptance to the College, and to all continuing students.
Prerequisite - A requirement that must be satisfied before enrolling in a particular course usually a previous course with a grade of "C" or better, or a test score.

Progress Probation - After enrolling in 12 units a student whose total units for which a W, NCR, or I has been assigned equals 50 percent or more of the units enrolled is placed on progress probation. A student whose cumulative number of units (beginning Fall 1981) for which a W, NCR, or I has been assigned equals 50 percent or more for three consecutive semesters is subject to dismissal from the College.
RD - Report Delayed. This temporary administrative symbol is recorded on the student's permanent record when a course grade has not been received from the instructor. It is changed to a letter grade when the grade report is received.
Registration - The process whereby a continuing student or a new or reentring student whose application has been accepted formally enters the College for a specific semester and receives a Registration/Fee Receipt. The student may enroll in open classes as part of the registration process.
Returning Student - A former Pierce student registering for classes who did not attend the College during the previous two semesters. A student registering for the fall semester is a returning student only if he or she did not attend the College during the previous spring or fall semesters; attendance during the summer session is not included in this determination. Returning students must file a new Admissions Application.
Schedule of Classes - A booklet used during registration giving the Subject Title, Course Number, Course Title, Units, Time, Instructor, and Location of all classes offered in a semester.

Section - A group of registered students meeting to study a particular course at a definite time. Each section has a section number listed in the Schedule of Classes before the scheduled time of class meeting.
Section Number - See "Section", above.
Semester - One-half of the academic year, usually 16 weeks.

Subject - A division into which knowledge customarily is assembled for study, such as Art, Mathematics, or Psychology.
Subject Deficiency - Lack of credit for a course or courses required for some particular objective, such as graduation or acceptance by another institution.

Transfer - Changing from one collegiate institution to another after having met the requirements for admission to the second institution
Transferable Units - College units earned through satisfactory completion of courses which have been articulated with four-year institutions.
Transcript - An official list of all courses taken at a college or university showing the final grade received for each course.
Transfer Courses - Courses designed to match lower division courses of a four-year institution and for which credit may be transferred to that institution.
Units - The amount of college credit earned by satisfactory completion of a specific course taken for one semester. Each unit represents one hour per week of lecture or recitation, or a longer time in laboratory or other exercises not requiring outside preparation.
Units Attempted - Total number of units in the courses for which a student received a grade of $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, or F .

Units Completed - Total number of units in the courses for which a student received a grade of $A, B, C, D$, or $C R$.

W - An administrative symbol assigned to a student's permanent record for all classes which a student has dropped or has been excluded from by the instructor after the end of the non-penalty drop date but before the last day to drop.
Withdrawal - The action a student takes in dropping all classes during any one semester and discontinuing coursework at the College.
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[^6]



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[^0]:    Students with financial need established by the College Financial Aid Office may also be eligible for deferment of enrollment fees.

[^1]:    ${ }^{1}$ Suggested Electives: Arch 291, 210, and Coop Ed.
    ${ }^{2}$ Math 116 or 115 or Math 125 may be substituted.
    ${ }^{3}$ Math 240 may be substituted
    ${ }^{4}$ Meets General Education Requirements, Option 2, Section D2.
    ${ }^{5}$ Meets General Education Requirements, Option 2, Section D1.
    ${ }^{6}$ Meets General Education Requirements, Option 2, Section E.

[^2]:    (All courses must be completed with a grade of "C" or better)
    *These courses have a prerequisite

[^3]:    ${ }^{1}$ Offered Fall semester only.
    ${ }^{2}$ Offered Spring semester only.

[^4]:    ${ }^{1}$ See Catalog course description for prerequisites.

[^5]:    ${ }^{1}$ Meets Associate Degree General Education Requirement Humanities.
    ${ }^{2}$ Same as Technical Theater 342, which may be substituted.

[^6]:    

