PIERCE COLLEGE
2004-2005
GENERAL CATALOG

THE SMART CHOICE

pierce

Los Angeles

Pierce College

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
Admissions....719-6404
Assessment Center/Matriculation....719-6499
Associated Students Organization....719-6411
Athletic Director....719-6421
Bookstore Information....347-0313
Building & Grounds....719-6441
Business Office....719-6432
Career & Transfer Center....710-4125
Center for Academic Success....710-2512
Child Development Center....719-6494
Citizenship Center....710-4157
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LOS ANGELES PIERCE COLLEGE

One Of Nine Los Angeles Community Colleges

General Catalog

2004-2005

Volume 56

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

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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Publication Coordinator
David Koehnlein

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.

Los Angeles Community College District
770 Wilshire Boulevard
Los Angeles, California 90017
(213) 891-2000

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A Message From The President

Keeping the dream alive

Pierce College is in the midst of a true Renaissance at it enters its second 50 years of service to the students of the San Fernando Valley.

The signs of new construction are everywhere. The support of the people of this community is resulting in changes that will make Pierce College the premiere community college in California.

But more important than the physical changes to Pierce, the college catalog outlines the backbone of the college—its courses of study and its faculty.

I invite you to look up your professors in the back of the catalog. I believe you will be impressed with the academic achievements of this fine teaching corps.

The answers to thousands of questions are printed in this catalog. I recommend you keep it and refer to it often. Whether it is a question of graduation or transfer or issue of proper student conduct, the catalog is the contract we all exist under.

I know you will enjoy your time at Pierce College and I am confident the staff of the college will do all it can to make your experience successful.

Dr. Tom Oliver
Acting 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).

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, student store, and Performing Arts Building. Most college facilities are accessible to students with physical handicaps.

Regular Program

For the academic year 2004-2005 the fall semester will run from August 30 to December 18, 2004. The spring semester will follow from February 7 to June 6, 2005.

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 300 magazines, journals, and newspapers. There is also an extensive microfilm collection of periodicals.

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 and informational databases and indexes.

Enrolled Pierce students are able to borrow library materials by presenting their current Pierce student I.D. card. Library policies and regulations are listed both in the library and on the web page. Please familiarize yourself with them before borrowing materials.

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

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

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

- 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

The following statement of college mission was adopted by the Los Angeles Community College Board of Trustees in 1999.

Los Angeles Pierce College is committed to providing quality education for all the communities it serves. Its primary mission is to provide a broad curriculum designed to enable students to achieve their educational goals. The College is committed to providing courses and programs for students to transfer successfully to other colleges and universities, to prepare for occupations and career advancement and develop skills for lifelong learning. To ensure student success, in either academic or occupational programs, Pierce College is committed to providing comprehensive support services and co-curricular activities.

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.

College Goals

The following college goals were developed by the Pierce College Planning Committee in 1999.

1. Promote comprehensive educational programs that develop knowledge, skills and attitudes necessary for students to become effective members of society.

   Foster challenging and relevant educational programs which articulate with baccalaureate programs, meet current skill requirements for occupational programs, offer career advancement opportunities, remediate basic skills to prepare for college level classes and encourage partnership programs with local & international industries & educational institutions.

2. Provide an attractive physical environment that is conducive to the learning process.
3. Stabilize college finances.
4. Promote effective communication with community, industrial, educational, political and civic leadership.
5. Enhance the availability of current technology to support educational processes.
6. Promote international and cross-cultural experiences for faculty, students and staff.
7. Foster a campus climate which serves and supports our diverse student population.
8. Include all elements of the college community in developing campus policies.
9. Support and advance the educational and cultural development of the community served by the college.

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

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.

ENCORE/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 education 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.

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) 719-6485.

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 Pierce 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 English placement test or by passing prerequisite courses.

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 3.0, are eligible for the TAP certification.

Satisfactory completion of the above guarantees priority consideration for admission to the UCLA College of Letters and Sciences 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 meet the above eligibility requirements, file a completed Honors Program application, along with an official copy of all high school 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.lacitycollege.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. Partnership programs are being established with overseas colleges and universities. 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 opportunities for personal and professional development, skill improvement and upgrading, cultural enrichment and recreational enjoyment for all ages.

Continuing Education, a community-based program, emphasizes 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 Community Services Office at (818) 719-6425.

Pierce College Foster Care Education

Pierce College Foster Care Education offers continuing education for foster parents, relative caregivers and others who are interested in foster 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 Care Education office at (818) 710-2937.

PACE

Project 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 1	Anthropology 101	History 2
Accounting 2	Geography 1	Biology 3	History 41	Anthropology 102	History 13
Anthropology 101	Geography 15	Child Development 1	Linguistics 1	Art 103	Humanities 30
Art 103	Health 9	Computer Science 530	Math 215	English 101	Humanities 31
Business 5	History 13	Education 203	Philosophy 1	English 103	Physical Science 1
CAOT 32	Humanities 60	English 101	Philosophy 2	English 209	Political Science 1
Computer Science 530	Math 245	English 102	Philosophy 6	Geography 1	Psychology 1
Economics 1	Math 227	Geography 2	Physical Science 1	Geography 2	Speech 101
Economics 2	Philosophy 20	Geography 14	Physical Science 14	Geography 14	Statistics 1
English 101	Political Science 1	Health 9	Political Science 1	Geography 15	
	Speech 101		Spanish 10	Health 9	
			Speech 101	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, bring your completed application to the Admissions and Records Office with picture ID and your social security card. You may also apply over the internet (www.piercecollege.edu) or by mail or fax (818 716- 1087). International students must complete their admissions process through the International Students Office. Concurrent high school students must also bring a completed Concurrent Enrollment Permission form. 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, 2004 and March 2, 2004 to be considered for Priority Funding for the academic year 2004-2005. 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/Orientation

Complete the English or English as a second language (ESL) and mathematics placement process. This process helps place students in classes where they are most likely to succeed. It is advisable to complete the assessment process as early as possible. Test scores and/or course work from other colleges may be used in place of the Pierce Assessment. Questions? Contact the Assessment Center at 719-6499.

4. Counseling/Advisement

Appointments for counseling/advisement will be given to you when you complete the assessment process. With the help of a counselor, you will complete a Student Education Plan (SEP). Graduation and major requirements will be reviewed, allowing you to select appropriate classes. You will receive a priority telephone/internet registration appointment at the end of your advisement session.

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. 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 by phone or mail, you may pick up your picture ID in the Campus Center.

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, 2004 and March 2, 2004 to be considered for Priority Funding for the academic year 2004-2005. 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. 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. 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 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 SCHOOL

As 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 Admission

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

- phone —(818) 719-6417 (Campus Center) or (818) 710-2511 (Admissions Room 1001)
- email—intlstu@piercecollege.edu
- FAX—(818) 710-2504 or (818) 347-8704
- website—www.piercecollege.com/students/iso/apply.html

Application Dates:

Fall Semester	Rolling - see office/website
Spring Semester	Rolling - see office/website

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. copies of visa, I-94 and information pages in passport if you are applying from within the U.S. If you are a transfer student, you must also provide a transfer letter from your most recent school and a copy of your current I-20AB.
3. confidential financial affidavit
4. official transcripts of all high schools and colleges/universities attended in all countries, including U.S.
5. proof of English proficiency or TOEFL score
6. 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.

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-of-status" to an F-1 visa from another visa may be obtained in the International Students Office.

See also International Students Program, page 43.

Procedures For Admission And Registration

Admission

Submit an Application for Admission. Bring picture ID and your Social Security card. Application forms are available at the Information Desk beginning on the first day of each application period, online, and in the schedule of classes. 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.

Provide a Social Security number on the application form. The Los Angeles Community College District maintains a student record system that uses the Social Security number to identify the individual's record. However, if students do not wish to report their Social Security numbers, an alternate identification number will be assigned by the College. Changes in a student's ID# may be made only in the Admissions Office. All future correspondence and requests for transcripts and other information must include this number. Social Security numbers, like all other student information, are confidential and will be used only as identification numbers.

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 non-U.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 non-resident tuition fees as established by the District Board of Trustees.

Non-resident students who have not paid all fees owed by the end of the fourth week of the semester will be administratively excluded from classes.

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.

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.

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 3 1/2 hours to complete and covers reading comprehension, grammar, essay writing, and math. The assessments are administered by the Assessment Center, and 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.

Orientation At the time of assessment, students will view an orientation video which provides information about the Pierce campus, including the College's programs, services, academic expectations, and institutional procedures. All new students are encouraged to sign up for Personal Development 1, an extended orientation class.

Counseling and Advisement All matriculating students are required to attend an advisement session conducted by a counselor, before registering, to develop a Student Educational Plan (SEP). This plan is an educational blueprint that outlines exactly what courses are needed to meet an educational goal. Undecided students are encouraged to register for a career counseling class (Personal Development 4 or 8) taught by a career counselor.

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. 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 schools 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 a Permit to Register. The Permit will provide the student with an appointment to register into the College. 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).
2. Before the first day of the semester, 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. Return to the Assessment Office five (5) working days **after** you file the petition for an answer.

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.

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 September, 2003 the fee prescribed by these sections is eighteen dollars ($18) per unit per semester with no maximum per semester. If you take ten units, the cost will be $180. If you take fifteen units, the cost will be $270 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 on 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.

Fee And Refund Schedule - Fall And Spring Semesters
(Effective Fall Semester, 2004)

TYPE OF FEE	AMOUNT	REFUND DEADLINE
Enrollment Fee *Subject to change by the California Legislature*	$18 per unit	End of the second week of the semester (Deadline for short term classes will be different for each class)
Non-resident Tuition *(All non-resident students must pay the $18 per unit enrollment fee in addition to non-resident tuition. Non resident tuition is due upon registration. Students who have not paid all non-resident tuition will be dropped from all classes on the Friday of the fourth week of the semester)*		
Students from another State:	$154 per unit	End of the second week of the semester
Students from another country:	$164 per unit	(Deadline for short term classes will be
International Student (F1 VISA) Application Fee:	$35	different for each class)
Health Services Fee	$11.00	End of the second week of the semester
Audit Fee	$15 per unit (Students who have enrolled in 10 units or more may audit up to 3 units without charge)	NOT REFUNDABLE OR TRANSFERABLE
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 Organization Membership Fee	$7	End of the second week of the semester - $7
Other Fees		
Emergency Processing of Transcript or Verification of Enrollment	$10	
Verification of Enrollment*	$3	
Record of Work in Progress*	$3	
Transcript*	$3	

** The first two are free*

All fee refunds must be claimed in person at the Business Office.

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.

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 household size and family income fall within the following limits:

Number in Household *(including yourself)*	**Total 2003 Family Income** *(Adjusted Gross Income and/or Untaxed Income)*
1	$13,470 or less
2	$18,180 or less
3	$22,890 or less
4	$27,600 or less
5	$32,310 or less
6	$37,020 or less
7	$44,730 or less
8	$46,440 or less
+	Add $4,710 for each additional member

Note: Students who qualify for the Enrollment Fee Waiver either by receiving benefits listed above or by household size and income level are also exempt from paying the health fee.

Students with financial need established by the College Financial Aid Office may also be eligible for deferment of enrollment and health fees.

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 a $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. Students who are using a fee waiver to pay for enrollment fees are also waived from the health fee. Students who are members of a religious group that depends on prayer for healing should contact the Health Center for exemption procedures.

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 2004-05 tuition fee for non-resident students is $154 per semester unit for students who are non-residents from another state; $164 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.

Please note: Non-resident students are also required to pay the community college enrollment fee. Non-resident tuition is due upon registration. Students who have not paid all non-resident tuition will be dropped from all classes on the Friday of the fourth week of the semester.

Students must drop classes by the refund deadline in order to avoid being charged the enrollment fee and the non-resident 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 TIME STAMPED	REFUND
Regular Length (Fall, Spring, Summer)	Through second week of instruction	Full Tuition
	After second week of instruction	No Refund
Short Term (Less than regular length)	Through 10 percent of class length	Full Tuition
	After 10 percent of 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 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 dry-mount parking decals. These decals are to be permanently attached to the **rear window in the corner on the passenger side.**

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	End of 2nd Week
$7.00	$7.00

Summer Session	
Amount Paid	1st Week
$3.00	$3.00

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).	

(CR and NC grades may be given only in courses authorized by the District Credit/No-Credit Option and Credit by Examination 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 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. See page 86.

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/no-credit 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.

Leave of Absence

A leave of absence is granted only by the instructor, and it is the responsibility of the student to satisfy the instructor as to the validity of the request for a leave of absence.

Withdrawal

Students intending to withdraw should avail themselves of the opportunity by first discussing 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 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 $18 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, 515, 516
Architecture	5
Auto Service Technology	1, 2, 3, 4, 5, 6, 7, 25
Computer Science	501, 506, 507, 508, 515, 530, 533, 536, 540, 551, 572, 587
Electronics	4A, 4B, 6A, 6B
English	101
French	1
Industrial Technology	130, 145, 146, 230, 330
Journalism	101, 216
***Music**	(201, 202, 203) (211, 212, 213, 214) (221, 222) (301, 302, 303)
Nursing	400, 402, 403, 404, 405, 406, 407, 408, 414, 415, 441, 442
Photography	10, 20
Physical Science	1
Physics	12
Spanish	27
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	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
Latin: Virgil	Elective Credit*	6
Catullus-Horace	Elective Credit*	6
Math: Calculus AB	Math 261	5
Calculus BC	Math 261, 262	10
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	Physics 37	5
C: Elec. & Mag.	Physics 38	5
Psychology	Psychology 1	3
Spanish Language	Spanish 1	5
Literature	Elective Credit*	6
U.S. Government & Politics	Political Science 1	3
U.S. Government & Politics-Comp.	Political Science 2	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:

1. Eliminating from consideration in the cumulative grade-point-average up to 18 semester units of course work, and
2. Annotating the student academic record indicating courses not included in the grade-point-average calculation due to Academic Renewal.
3. 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-point-average, 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 ten (10) 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 2 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 Illegal 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 drug-free 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 extra-curricular 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. DECALS MUST BE DISPLAYED ON THE OUTSIDE REAR WINDOW WITHIN THE BOTTOM 7 INCHES OF THE REAR PASSENGER SIDE OF THE VEHICLE

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

PAY VALIDATION 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.

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 4:30 - 9:30 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 governments and private sources in the form of grants, scholarships, loans and employment. 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 non-citizen 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.
- Be making satisfactory progress in a course of study leading to 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 Supplement 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 2004-2005 Academic Year.

  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, 2004.

  The priority date is established to encourage early application for financial aid. Students who have missed the priority date may still apply, as funds may be available.

- **MAY/JUNE**
  Award Notifications are issued for priority applicants!
- **AUGUST/SEPTEMBER**
  Financial Aid disbursement for priority applicants.
- **OTHER DEADLINES**
  September 2, 2004 - Cal Grant Community College competitive awards deadline.

  November 11, 2004 - Deadline for Fall 2004 only loans.

  April 14, 2005 - 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, 2005, 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. FAFSA applications are available at College Financial Aid Offices, high schools, counseling offices, and libraries. Mail the completed FAFSA application in the envelope provided to:

Federal Student Aid Programs
P.O. Box 4691
Mt. Vernon, IL 62864-8601

Students may also 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 do not have a Personal Identification Number (PIN) you may log on to the FAFSA website: www.fafsa.ed.gov for information in regard to requesting a PIN number.

The Financial Aid Office maintains the right to request additional information as 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 home school. For further information, please contact the Financial Aid Office.

Beginning in the 2004-05 academic year Los Angeles Pierce College will 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 2003 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 amount of the grants varies 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 (including yourself)	Total family Income (adjusted gross income and/or untaxed income)
1	$13,470 or less
2	$18,180 or less
3	$22,890 or less
4	$27,600 or less

Add $4,710 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 students who qualify, until they transfer to a four-year college, but not more than two years.

  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.

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 delivered 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 $7,500 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 2nd); 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. Employment under this program is also available to students qualifying for financial aid during the summer.

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 will post these announcements on their website at www.piercecollege.com/usr/finaid/scholarships.htm.

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 usually available two weeks after the student receives an Award Letter from the Financial Aid Office. Students who submit their aid application documents by May 1, can expect to have their first aid disbursement ready during the first week of the Fall semester, if eligible. Financial Aid funds can either be transferred electronically to the student's bank account (preferred method), mailed to the student's mailing address, or be picked-up at the College Business Office.

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 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; ¾ time is considered 9-11.5 units per semester; ½ time is considered 6-8.5 units per semester; less than half time is 1-5.5 units per semester.

FSEOG grants are scheduled for payment once per semester for students enrolled 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 in the first 60% of the term, are subject to **new 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.**

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.

2004-2005 Average Cost of Attendance

	Living at home		Living Away from Home	
	9 Mos.	12 Mos.	9 Mos.	12 Mos.
Fees	504	756	504	756
Books & Supplies	1,260	1,890	1,260	1,890
Room & Board	3,240	4,320	8,334	11,112
Transportation	864	1,152	990	1,320
Personal Expense	2,214	2,952	2,214	2,952
Total	**8,082**	**11,070**	**13,302**	**18,030**

Non Resident Tuition is added to fees, 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 Child 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

A student living away for home and receiving free room and board and/or who has insufficient income for his/her family size will be treated the same as a student living at home.

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

Students at a Los Angeles Community College applying for and receiving financial aid have a right to the following:

1. Information on all financial assistance available which includes all federal, state, and institutional financial aid programs.
2. Knowledge of all deadlines for applications to each financial aid program and for any supporting documentation.
3. Specific information regarding fees, tuition, and the refund policy for those students who drop out of school.
4. An explanation of how students are selected for receipt of financial aid and how financial need is determined. This process includes a consideration of costs of tuition and fees, books and supplies, room and board, transportation, personal and miscellaneous expenses, child care, etc., plus the student's assets, parental contribution, other financial aid (such as scholarships) and so on.
5. Knowledge of what resources are considered in the calculation of student need.
6. Knowledge of how the financial aid package has been determined.
7. An explanation of the various programs awarded in the student's financial aid package. If a student feels he/she has been treated unfairly, a reconsideration of the award may be requested.
8. An explanation of the portion of financial aid the student received that must be repaid and what portion is grant aid or work study and does not need to be repaid. If the aid is a loan, the student has the right to know what the interest rate is, the total amount to be repaid, when the repayment is to begin and the conditions of deferment and cancellation.
9. Knowledge of how the Los Angeles Community College District determines whether students are making "satisfactory progress" and what happens if they are not.
10. Knowledge of what facilities are available for handicapped students.

Responsibilities

Students must take responsibility for:

1. Reviewing and considering all information about the Los Angeles Community College District academic programs before they enroll.
2. Completing all the application forms ACCURATELY AND COMPLETELY and submitting them to the right place on time. If this is not done, aid could be delayed since 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 (if the student has a loan) of changes in name, address or school status.
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

Satisfactory Academic Progress standards for the 2004-2005 academic year will be the same as the standards published in the 2003-2004 Pierce College Catalog. The new Satisfactory Academic Progress Standards, listed in this catalog, will become effective at the beginning of the 2005-2006 academic year. For continuing students attending Summer 2005 Satisfactory Academic Progress will be assessed on the 2004-2005 Satisfactory Academic Progress Policy.

General Information

In accordance with the Higher Education Act of 1965, as amended, the Los Angeles Community College District (herein 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

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.

Automated Satisfactory Academic Progress Review

- Beginning with the 1997-98 award year, the review of satisfactory academic progress has been automated.
- The first automated report was run at the end of the Fall 1997 semester to determine satisfactory academic progress for Spring 1998.

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 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.

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

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.

- Attending full-time (12 units or more), a student is expected to complete his/her objective in three years.
- Attending part-time (less than 12 units), a student is expected to complete his/her objective in six years.
- 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 Certificate Program	Normal Length	Maximum 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.

Due to the change in the Satisfactory Academic Progress Policy Standards for the 2005-2006 academic year Spring '04, Summer '04, and Fall '04 will be reviewed for all students in accordance with the Satisfactory Progress Standards in effect for 2003-2004.

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 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 2nd 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 enrollment 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/usr/finaid/index.htm**
- FAFSA on the web - **www.fafsa.ed.gov**
- Title IV School Codes (used to complete the FAFSA) - **www.ed.gov/offices/OPE/+4_codes.html**
- Help in completing the FAFSA - **www.ed.gov/prog_info/SFA/FAFSA**
- The Student Guide - **www.ed.gov/prog_infor/SFA/studentguide**

Telephone Numbers

- Financial Aid, Scholarships and Veterans Office — (818) 719-6428
- California Student Aid Commission — (916) 445-0880
- 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. to 4:00 p.m. Monday through 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; and MWF, TTh or M-F 12:00-3/4:00 p.m. 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 need to 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 Counseling Department assists students in making decisions regarding educational, career, and personal concerns. Counseling is available for Educational and Career Planning, and personal and crisis problem situations. These services are provided by professional counselors through individual and group counseling and advisement, short-term classes, workshops, reference materials, referrals to resources on or off campus, and through the use of testing and referral to reference materials. Counseling can assist individuals to assess interests, abilities, and values; to set goals; to make plans to accomplish the goals; and to address personal problems that impede those plans.

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

Personal counseling may be obtained from counselors in the Counseling Office or at the Help Center. The Help Center, staffed by counselors, is available to students who feel a need for short-term help with personal problems in a crisis situation. Assistance may be provided through a limited number of individual counseling sessions and referrals. For an appointment go to the Help Center located in the Administration Building, ADM 1002, next to the Counseling Office or call (818) 710-4175, (818) 719-6440.

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 McCormick
Transfer Center Director
818-710-2516
mccormea@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, UCSB, and the Art Center, 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 new 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 state-funded 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 is located in Bungalow 0340. 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.

GAIN/CalWORKs Program

Since 1989, the Pierce College GAIN/CalWORKs Program has provided basic skills education, job-related training, preparation for A.A. / A.S. degrees and transfer to four-year institutions, services for English language learners and workforce readiness skills. Students must currently receive cash public assistance for themselves and at least one child under the age of 18 years; those who have received cash public assistance within the prior year and are employed may also qualify. The purpose of the program is to give students the tools for economic self-sufficiency and career advancement.

Eligible students are provided services and programs including:

- Case management coordination
- Academic and personal counseling
- Books & supplies, transportation and childcare grants
- Work-study employment
- Personal development and occupational skills seminars
- Pierce College Job Center and Employment Development Department services
- Post-employment skills upgrading

Office hours are Monday-Thursday, 8:30 a.m. to 4:30 p.m. Closed from noon to 1 p.m. Closed Fridays. Evening hours by appointment. Phone: (818) 719-6400. The GAIN/CalWORKs office is located in Bungalow 0370, across from the Financial Aid Office.

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 7:30 p.m., Monday through Thursday. Closed Fridays.

Satellite

Located near the Library on the mall, The Satellite offers coffee, cold drinks, assorted snacks and sandwiches. Open Monday through Friday 7:00 to 2:00 p.m.

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.

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, Special Services, and EOPS.

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.

The Help Center is located in the Administration Building, ADM 1002, next to the Counseling Center. For appointments, please call (818) 710-4175 or (818) 719-6440, or drop by the Center.

International Students Program

International Education is a major undertaking of Pierce College. 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 Office as soon as they decide to study at Pierce College. Admissions requirements for international students are different from those for resident students and non-residents on other types of visas. The application package can be obtained from:

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

Application Deadlines — Rolling (year round). See 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 following orientation.

All F-1 students must maintain their status by meeting specific requirements outlined by United States federal regulations. Students must complete 12 units each semester, must maintain a 2.0 grade point average, must not accept unauthorized employment, must have a valid passport and must have a current I-20. Students who have questions about their status may receive assistance from the International Students Office in the Campus Center.

Although the college does not have any dormitories, students can receive information about rentals and homestay programs from the International Students Office. See also Admission Eligibility, page 12.

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

The Learning Center provides services to enhance student success in the classroom. All services are free to currently enrolled Pierce College students; however, there is a printing fee.

Services include:

COMPUTER LAB: Over 60 computer stations are available in the center's computer lab for student use. Students may utilize word processing for class related work or access the Internet, or to take advantage of Computer Assisted Instruction programs.

TUTORIAL PROGRAM: The Learning Center tutorial program offers free individual and group tutoring in a variety of subjects. Tutoring is on a walk-in, first-come, first-served basis. Check the Learning Center website or stop by the center (TLC 1613) for current semester subjects and tutoring hours.

SUPPLEMENTAL INSTRUCTION: Supplemental Instruction is available in selected courses. Current courses are listed in the class schedule.

WORKSHOP PROGRAM: The Learning Center workshop program offers small group instruction in English composition and language skills for ESL and native speakers. Workshops meet on a regular schedule throughout the semester. Students may obtain a schedule and sign up beginning the first week of each semester.

LOCATION AND HOURS: The Learning Center is located in TLC 1613.
Fall and Spring Hours: Monday-Thursday 9 a.m. - 8:45 p.m.
Friday 9 a.m. - 1:45 p.m.
Winter and Summer Session Hours: To be announced. For further information, call (818) 710-4230 or (818) 719-6414, or visit our website at tlclapc.cc.ca.us.

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.

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 0371 (trailer).

Student Store

Pierce College's Student Store is located in the center of the campus next to the Library. 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.

Publications

College Newspaper

The college newspaper is published as a learning experience, offered under the college journalism instructional program. The editorial and advertising materials published by the newspaper, including any opinions expressed, are the responsibility of the student newspaper staff. Under appropriate state and federal court decisions these materials are free from prior restraint by virtue of the First Amendment to the United States Constitution. Accordingly, materials published, including any opinions expressed, should not be interpreted as the position of the Los Angeles Community College District, the College, or any District or College officer or employee.

Journalism students produce the award-winning college newspaper, the Roundup, which is published weekly and distributed free to all students. This newspaper contains news of the entire college, both day and evening. Also, journalism students produce a magazine, The Bull, which is 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
(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 degree-applicable 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 1A 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 degree-applicable 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 degree-applicable 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-by-case 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, department-related 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 Trustees 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 1st and ending on May 31st.

Qualifications:

Candidates for Student Trustee must:

a. Be currently enrolled and in good standing at one or more colleges in the District.

b. 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.

c. 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.

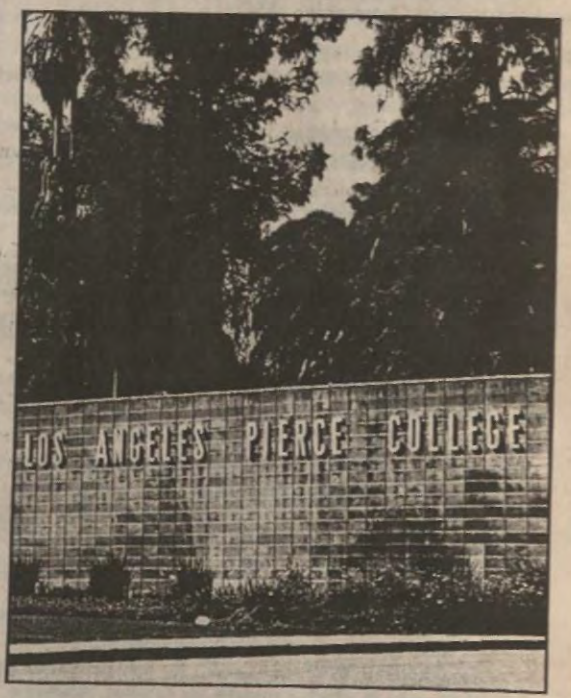
In order to be considered for an exemption, a student, who exceeds the requisite 80 transferable unit maximum, must satisfy at least one of the following conditions:

1. 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.

2. Program prerequisites, as specified in the catalog at student's primary college of attendance, caused the student to exceed the 80 transferable unit maximum.

3. 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/

University of California Information at UC Pathways:
www.ucop.edu/pathways

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

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:

Section A: Natural Science - Select 3 units from the following:

Anml Sc 511
Anatomy 1
Anthro 101, 111
Astron 1, 2, 3
Biology 3, 6, 10
Chem 51, 60, 101
Electron 2, 4A, 6A
Env Sci 1, 2, 7
Geog 1, 3, 15, 21, 22
Geol 1, 4, 6, 10, 11, 17, 22
Meteor 3
Oceano 1, 10, 12
Phy Sci 1, 4
Physics 6, 7, 12, 66, 67, 101, 102, 103
Physiol 1, 8, 9
Plnt Sc 103, 711, 901, 910, 940, 950
Psych 2

Section B: Social and Behavioral Science - Select 3 units from the following:

History 11, 12, 13, 41, 42, 43, 44, 52
Pol Sci 1, 30

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

ASL 1, 2, 3, 4, 40
Anthro 104, 105, 121
Art 101, 102, 103, 105, 111, 119, 137, 138, 139, 201, 202, 203, 400, 500, 501, 502, 503, 604, 605, 606, 614, 700, 708
Cinema 3, 18, 104
Dance 801, 802, 803
English 102, 103, 203, 204, 205, 206, 207, 208, 209, 211, 212, 213, 214, 215, 216, 219, 239, 240, 250, 251, 252, 270
French 1, 2, 3, 4, 5, 6, 8, 10
History 1, 2, 7, 31, 86, 87
Human 1, 6, 11, 12, 13, 14, 30, 31, 60, 61
Italian 1, 2, 3, 4, 5, 6, 8
Japan 1, 2, 3, 4, 8, 27
Ling 1
Music 101, 111, 121, 122, 152, 181, 182, 183, 184, 201, 202, 203, 321, 322, 323, 324, 411, 412, 413, 414, 501, 531, 561, 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 10, 27
Soc 11
Spanish 1, 2, 3, 4, 5, 6, 8, 12, 15, 25, 27
Theater 100, 110, 125, 265, 270, 300

Section D: Language and Rationality - 6 units

1. Select 3 units from the following courses:

English 28, 101
Journal 101, 108
CAOT 31, 32

2. Select 3 units from the following courses:

Acctg 1
CAOT 77
Co Sci 501, 506, 507, 530, 572, 575
Electron 10
Geog 31, 32, 33GIS 31, 32, 33
Math 115, 125, 215, 227, 238, 240, 245, 260, 261, 291
Philos 5, 6, 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 Ed 100 through 600 or Phys Ed 90A, 90B, 91, 96, 666, 690, 702, or Dance 801–1 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 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:

Anml Sc 511
Anatomy 1
Anthro 101, 111
Astron 1, 2, 3
Biology 3, 6, 10
Chem 51, 60, 101
Electron 2, 4A, 6A
Env Sci 1, 2, 7
Geog 1, 3, 15, 21, 22
Geol 1, 4, 6, 10, 11, 17, 22
Meteor 3
Oceano 1, 10, 12
Phy Sci 1, 4
Physics 6, 7, 12, 66, 67, 101, 102, 103
Physiol 1, 8, 9
Plnt Sc 103, 711, 901, 910, 940, 950
Psych 2

Section B: Social and Behavioral Sciences - 9 units

1. Select 3 units from the following courses:
   History 11, 12, 13, 41, 42, 43, 44, 52
   Pol Sci 1, 30
2. Select 3 units from the following courses:
   Addicst 15
   Anthro 102, 106, 132, 141
   Bus 1, 5
   Child Dev 1
   Econ 1, 2, 10, 16, 30
   Geog 2, 7, 14
   History 3, 4, 5, 6, 8, 15, 20, 21, 27, 30, 39, 40, 43, 44
   Journal 100
   Mgmt 31, 33
   Plnt Sc 110
   Pol Sci 2, 7, 14, 19
   Psych 1, 3, 6, 11, 13, 14, 16, 18, 32, 40, 41, 52, 66
   Soc 1, 2, 3, 8, 11, 13, 28, 29
   Spanish 10, 26
   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, 111, 119, 137, 138, 139, 201, 202, 203, 400, 500, 501, 502, 503, 604, 605, 606, 614, 700, 708
Cinema 3, 18, 104
Dance 801, 802, 803
English 102, 103, 203, 204, 205, 206, 207, 208, 209, 211, 212, 213, 214, 215, 216, 219, 239, 240, 250, 251, 252, 270
French 1, 2, 3, 4, 5, 6, 8, 10
History 1, 2, 7, 31, 86, 87
Human 1, 6, 11, 12, 13, 14, 30, 31, 60, 61
Italian 1, 2, 3, 4, 5, 6, 8
Japan 1, 2, 3, 4, 8, 27
Ling 1
Music 101, 111, 121, 122, 152, 181, 182, 183, 184, 201, 202, 203, 321, 322, 323, 324, 411, 412, 413, 414, 501, 531, 561, 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 10, 27
Soc 11
Spanish 1, 2, 3, 4, 5, 6, 8, 12, 15, 25, 27
Theater 100, 110, 125, 265, 270, 300

Section D: Language and Rationality - 12 units

1. Select 3 units from the following courses:
   English 28, 101
   Journal 101
   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
   Math 115, 125, 215, 227, 238, 240, 245, 260, 261, 291
   Philos 5, 6, 9
   Psych 26, 66
   Soc 4
   Speech 101, 103, 104, 121, 122
   Stat 1, 7
   Supv 11
3. Select 3 additional units from numbers 1 or 2 above.

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 600 or Phys Ed 90A, 90B, 91, 96, 666, 690, 702, or Dance 801 - 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
ADDICTION STUDIES	**James Crossen**	**994-6858 BUS 3222**
AGRICULTURE AND NATURAL RESOURCES	**Richard South**	**719-6463 AS 4103A**
Animal Science	Floral Design & Management	
Equine Science/Horse Science	General Agriculture	
Horticulture & Landscaping	Natural Resources Management	
Pre-Veterinary Sciences	Veterinary Science & Technology	
ANTHROPOLOGICAL & GEOGRAPHICAL SCIENCES	**Philip Stein**	**710-4104 FO 2905**
Anthropology	Geography	
Geographic Information Systems	Linguistics	Meteorology
ART	**David Oshima**	**719-6475 ART 3303D**
Architecture	Art History	Ceramics
Architectural History	Fine Art	Graphic Design
Drawing	Sculpture	Web Design
Painting	3-D Animation	Digital Imaging
BUSINESS ADMINISTRATION	**David Braun**	**719-6479 BUS 3213E**
Accounting	Business	Business Law
Finance	Management	Marketing
International Business	Real Estate	Supervision
CHEMISTRY	**Isidore Goodman**	**719-6464 CHEM 0804**
COMPUTER APPLICATIONS & OFFICE TECHNOLOGIES	**Lyn Clark**	**710-4244 BUS 3210B**
Advanced Computer Applications	Basic Word Processing: WordPerfect	
Basic Computer Applications	General Administrative	
Basic Computerized Accounting	Office Communications	
Basic Internet	Adminstrative Professional	
Basic Word Processing: Microsoft Word for Windows		
COMPUTER SCIENCE & INFORMATION TECHNOLOGY	**Lynne O'Hanlon**	**710-2933 COSC 1503**
Computer and Network Technology	Programming for Business	
Programming for Computer Science		
COOPERATIVE EDUCATION	**Ron Smetzer**	**710-4291 IT 3642**
COUNSELING	**Rudy Dompe**	**719-6440 ADM 1000**
Personal Development		
EDUCATION		**710-2892 FO 2901**
ENGLISH	**Donna Accardo**	**710-2879 FO 2501**
English	English as a Second Language	
HISTORY/HUMANITIES	**Eugene Larson**	**710-4305 FO 3101**
HONORS PROGRAM	**Diane Levine (Acting Director)**	**719-6485 FO 2800**
INDUSTRIAL TECHNOLOGY	**Larry Humphrey**	**710-4259 AT 3803**
Automotive Service Technology	Drafting, Mechanical	
Electronics	Engineering, Mechanical	
Machine Shop-CNC	Welding	

Department & Subjects	Chairperson(s)	Phone/Office
LEARNING CENTER		**710-2892 TLC 1613**
Learning Skills	Computer Lab	Tutoring
LIBRARY SCIENCE	**Florence Robin**	**719-6409 LIBRARY**
LIFE SCIENCES	**James Rikel**	**719-6465 LS 1715**
Anatomy	Biology	
Microbiology	Oceanography (Marine Biology)	
Physiology		
MATHEMATICS	**Allen Epstein**	**719-6492 MATH 1409E**
MEDIA ARTS	**Rob O'Neil**	**710-2962 BUNG 0361**
Broadcasting	Cinema	Journalism
Photography	Public Relations	
MODERN LANGUAGES	**Cynthia Herbst**	**710-2873 FO 2207**
American Sign Language	French	
Italian	Japanese	Spanish
MUSIC	**Stephen Piazza**	**719-6476 MUS 3416A**
NURSING	**Marcia Solomon**	**719-6477 BUNG 0320**
Registered Nursing (ADN)	Certified Nursing Assistant	
LVN to RN	Continuing Education for Nurses	
P.A.C.E.	**Edward Mazeika (Acting Director)**	**719-6485 FO 2800**
PHILOSOPHY/ SOCIOLOGY	**Betty Odello**	**710-4329 FO 2306**
Philosophy	Sociology	
PHYSICAL EDUCATION ATHLETICS	**William Norton Robert Lyons**	**710-2815 719-9421**
Athletics	Health Education	
Physical Education	Recreation	
PHYSICS & PLANETARY SCIENCES	**William Duxler**	**710-2931 PHYS 0902**
Astronomy	Environmental Science	
Geology	Oceanography	
Physical Science	Physics	
POLITICAL SCIENCE - ECONOMICS	**Norm Levy**	**710-4328 FO 2304**
Adminstration of Justice	Economics	
Law	Political Science	
PSYCHOLOGY	**Lynne Peterson**	**710-4368 BEH 1306C**
Child Development	Psychology	Statistics
SERVICE LEARNING	**Jim Dawson**	**710-2588 BUNG 0399**
SPECIAL EDUCATION	**Norm Crozer**	**719-6430 ADM 1024**
SPEECH COMMUNICATION	**Barbara Anderson**	**710-2524 FO 2704**
THEATER ARTS & DANCE	**Gene Putnam**	**719-6488 PAB 3539**
Dance	Theater	

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		CA
Floral Design and Management	AS	C
General Agriculture	AS	C
Horse Science	AS	C
Horticulture		
General Horticulture	AS	
Greenhouse and Nursery Industry	AS	
Landscape Installation and Maintenance Industry	AS	
Landscape Planning and Design	AS	
Basic Gardening (Basic)		CA
Basic Gardening (Advanced)		C
Landscape Technician (Basic)		C
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
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
Cinema		CA
Computer Applications & Office Technologies		
General Administrative	AA	C
Administrative Professional	AA	C
Basic Computerized Accounting		C
Basic Computer Applications		C
Advanced Computer Applications		C
Basic Internet		CA
Basic Word Processing: WordPerfect		CA
Basic Word Processing: Microsoft Word		CA
Office Communications		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*
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 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	*CA*
Mexican Studies		*CA*
Liberal Arts and Science	AA	
Mathematics		*CA*
Meteorology		*CA*
Music	AA	
Electronic Music		*CA*
Nursing	AA	
Photojournalism	AA	*CA*
Physical Education		*CA*
Aquatics		*CA*
Lifetime Fitness		*CA*
Visual and Performing Arts through Dance		*CA*
Physics		*CA*
Pre-Engineering	AS	
Psychology		*CA*
Spanish	AA	*CA*
Hispanic Studies		*CA*
Spanish Translation		*CA*
Theater	AA	
Costume Option	AA	
Technical Theater Option	AA	
Women's Studies		*CA*

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 the education, knowledge, training and skills necessary for persons to function effectively and efficiently at all professional hire levels, and in all vocational areas and settings in the field of chemical dependency - whether in prevention, intervention, treatment, or recovery - consistent with the identified core skills, competencies and standards, ethics, values and attitudes of the emerging new profession, Chemical Dependency Specialist (CDS).

To provide fully accredited professional training and education for persons already working in the field who recognize the need to upgrade their qualifications, as well as for personnel of agencies holding grants or contracts which require that their staff be formally trained, educated and eligible for relevant credentialing, or state license when it occurs.

Advanced courses also provide 54 hours of continuing education credit.

Associate in Arts Degree

Students may obtain an Associate in 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 3.

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 two of the following

		UNITS
Addicst 11	Drinking Driver Programs Personnel Training	3
Addicst 13	Addictive Diseases & Lifestyle Disorders	3
Addicst 14	Addiction And Theories Of Human Development	3
Addicst 15	Sociological Aspects Of Addiction	3
Addicst 16	Continuing Recovery: Specific Strategies And Basic Skills	3
Addicst 17	Women And Addiction	3
Addicst 18	Addiction And Eating Disorders	3
Addicst 19	Alcohol And Drug Education And Prevention	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 or Anthropology 3

Plus one course in History or Political Science. 3

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

	UNITS
Any 23 units from the Agriculture Department.	23

AREA C - ELECTIVES

	UNITS
Any courses approved by either department chairs of Agriculture or Business	6

Agriculture - Equine Science

Certificate of Achievement - Mule Handling and Management

REQUIRED COURSES

		UNITS
Animal Sci 620	Basic Equitation	1
Animal Sci 621	Horseback Riding Lab	1
Animal Sci 611	Farrier Science	2
Animal Sci 645	Equine Issues (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

		UNITS
*Plant Sci 701	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	2
*Plant Sci 704	Advanced Retail Floral Design and Practices	2
Plant Sci 708ABC	Floristry Projects	6

**These courses must be taken in sequence.*

AREA B - MAJOR ELECTIVE

	UNITS
Students select related courses approved by the department. Suggested courses include, but are not 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.	28

AREA C - GENERAL EDUCATION

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

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	2
*Plant Sci 704	Advanced Retail Floral Design and Practices	2
Plant Sci 708ABC	Floristry Projects	6

**These courses must be taken in sequence.*

ELECTIVES

	UNITS
Students select related courses approved by the department. Suggested courses include, but are not 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	16

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

	UNITS
Additional classes should be selected from any Agriculture Department courses.	20

AREA C - GENERAL EDUCATION

	UNITS
Courses selected from College Catalog to meet degree requirements.	17

See Associate Degree Requirements, Option 2.

Certificate Program

		UNITS
Plant Sci 103	Introduction to Soils	3
Animal Sci 501	Principles of Animal Science	3
Plant Sci 714	Principles of Horticulture	3
ANY	500 Series Classes	6
ANY	600 Series Classes	3
ANY	700 Series Classes	3
ANY	800 Series Classes	6
ANY	Business Classes	9
Co Sci 530	Microcomputer Application Software	3

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 103	Introduction to Soils	3
Animal Sci 601	Horse Production	3
Animal Sci 602	Horse Husbandry	3

AREA B - REQUIRED MAJOR

		UNITS
Animal Sci 501	Principles of Animal Science	3
Animal Sci 505	Animal Nutrition	3
Animal Sci 510	Animal Health and Disease Control	3
[1]Animal Sci 511	Anatomy and Physiology of Animals	3
Animal Sci 603	Equine Management Techniques	10
Animal Sci 611	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

	UNITS
Select from any of the Agriculture Department 100, 200, 300, 500 or 600 series courses.	10

AREA D - GENERAL EDUCATION

	UNITS
Courses selected from College Catalog to meet degree requirements. See Associate Degree Requirements, Option 2.	20

Certificate Program

		UNITS
Animal Sci 501	Principles of Animal Science	3
Animal Sci 505	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 100, 500 or 600 series courses	6

[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 or	3
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

	UNITS
Select from Plant Science 700 or 800 series courses or other courses as approved by the Department.	7

AREA D - GENERAL EDUCATION

	UNITS
Courses selected from College Catalog to meet degree requirements. See Associate Degree Requirements, Option 2.	15

[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

		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 896A-C	Horticulture Projects A-C	1-6

AREA B - REQUIRED COURSES

		UNITS
Plant Sci 716	Arboriculture I (Care of Trees and Shrubs)	1
Plant Sci 742B	Practicum in Horticulture B	1
Plant Sci 756	Greenhouse Plant Production	3
Plant Sci757	Plant Propagation	3
Plant Sci 760	Indoor Plant Care and Maintenance I	1
Plant Sci 808	Residential Landscape Design	3
Plant Sci 848	Training for Pest Control License	3

AREA C - MAJOR ELECTIVES

	UNITS
Select from Plant Science 700 or 800 series courses or other courses as approved by the Department	10

AREA D - GENERAL EDUCATION

	UNITS
Courses selected from College Catalog to meet degree requirements. See Associate Degree Requirements, Option 2.	15

[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
[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 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

	UNITS
Select from Plant Science 700 or 800 series courses or other courses as approved by Department.	10

AREA D - GENERAL EDUCATION

	UNITS
Courses selected from College Catalog to meet degree requirements. See Associate Degree Requirements, Option 2.	15

[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	Advanced Landscape Planning and Design	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. See Associate Degree Requirements, Option 2.	15

[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.

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

Agriculture - Natural Resources 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.

The Natural Resources Management Program at Pierce College is designed to provide students with a two-year Associate Science Degree. Courses are oriented and designed to give students practical outdoor skills and experiences which are necessary in resource management today. Included are techniques of native shrub and tree identification, propagation, planting, and management; soil profile study; resource data collection techniques; basic land measurement skills; and topographic map/aerial photo interpretation. Independent study, projects, and work experience are encouraged. Emphasis is placed on acquainting the student with government resource management agencies and their associated career areas.

REQUIRED CLASSES

		UNITS
[1]Plant Sci 103	Introduction to Soils	3
Animal Sci 181A-D		Field Work A-D
	or	
Animal Sci 185 Animal Sci 285 Animal Sci 385	Directed Study	1-4
[1]Plant Sci 711	Botany for Horticulture	4
Plant Sci 901	Natural Resources Conservation	3
Plant Sci 902	Natural Resources Laboratory	1
Plant Sci 905	Introduction to Outdoor Recreation	2
Plant Sci 940	Introduction to Forest Management	2
Plant Sci 950	Introduction to Wildlife Management	2
Plant Sci 960	Wildland Fire Science	2
Plant Sci 975	California Native Plants	3
Biology 10	Natural History I	4
Geology 1	Physical Geology	3

MAJOR ELECTIVES PART A (MINIMUM OF 10 UNITS)

		UNITS
Plant Sci 906	Outdoor Recreation Management Laboratory	1
Plant Sci 920	Natural Resource Construction Techniques	2
Plant Sci 930	Maps/Aerial Photos	2
Plant Sci 931	Natural Resources Measurement	2
Plant Sci 941	Forest Management Laboratory	1
Plant Sci 942	Urban Forestry	2
Plant Sci 944	Global Forestry	2
Plant Sci 951	Wildlife Management Laboratory	1
Plant Sci 961	Wildland Fire Science Laboratory	1
Plant Sci 970	Range Management	3
CoSci 530	Microcomputer Application Software	3

MAJOR ELECTIVES PART B (MINIMUM OF 7 UNITS)

		UNITS
Plant Sci 716	Arboriculture I (Care of Trees and Shrubs)	1
Anthro 103	Archaeology: Reconstructing of Human Past	3
Anthro 132	North American Indians	3
English 22	Technical English	3
Geog 14	Geography of California	3
Geology 10	Introduction to Environmental Geology	3
Geology 11	Introduction to Geology: Our National Parks and Monuments	3
Geology 12	Introduction to the Geology of California	3
Oceano 1	Introduction to Oceanography	3
Speech 101	Oral Communication I	3

GENERAL EDUCATION

	UNITS
Courses selected from College Catalog to meet degree requirements. See Associate Degree Requirements, Option 2.	17

[1]*Meets General Education Requirements, Option 2, Section A.*

Agriculture - Pre-Veterinary Medicine

Associate in Science Degree

Department Subject Advisor: Dr. Lee Shapiro

PRE-VETERINARY MAJOR

The Pierce College Pre-Veterinary Program has an articulation agreement with the U.C. Davis School of Veterinary Medicine. This agreement allows our pre-veterinary students to apply directly to the Veterinary school after completing an AS degree and taking upper division Genetics and Embryology classes at another college. Work with veterinarians is required for admission to Veterinary school, so that students understand the duties and responsibilities of a practitioner. The minimum requirement for animal, veterinary, and biomedical science experience is 180 hours. 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

		UNITS
Animal Sci 401	Orientation to Veterinary Science	1
Animal Sci 501	Principles of Animal Science	3
Animal Sci 505	Animal Nutrition	3
Animal Sci 511/512	Anatomy and Physiology	4
	American History/Government	3
Biology 6	General Biology I (Prerequisite college chemistry with laboratory)	5
Biology 7	General Biology II	5
Chem 101	General Chemistry I	5
Chem 102	General Chemistry II	5
Chem 211	Organic Chemistry for Science Majors I	5
Chem 221	Biochemistry for Science Majors	5
English 101, 102, and one additional English class		9
Humanities and Social Sciences		9
Math 227	Statistics	4
Physics 6	General Physics I (Prerequisite Trigonometry)	4
Physiol 1	Introduction to Human Physiology I	4

PRE-VETERINARY EXPERIENTIAL TRAINING

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

		UNITS
Animal Sci 410/411	Animal Nursing I/Laboratory	3
Animal Sci 420/421	Clinical Procedures in Animal Care I/Laboratory	3
Animal Sci 430/431	Veterinary Clinical Pathology/Laboratory	3
Animal Sci 435/436	Veterinary Radiography/Laboratory	3
Animal Sci 441	Large Animal Nursing Laboratory	2
Animal Sci 603	Equine Management Techniques	2
Animal Sci 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)

		UNITS
Animal Sci 120	Ethical Issues of Using Animals	3
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 505	Animal Nutrition	3
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

Agriculture - Veterinary Technology

Associate in Science Degree

Department Subject Advisor: Elizabeth White

Pierce College offers AS degrees in veterinary technology and pre-veterinary medicine. The veterinary technology major qualifies a student to take the California State Board Examination to become a licensed Animal Health Technician.

The Agriculture Department boasts a variety of animal species on campus, including horses, beef, cattle, sheep, dogs, cats, rabbits, pigs, and llamas. We also have a fine library which complements the Pierce College Library. Our faculty includes a Veterinarian, a Ph.D., a Registered Veterinary Technician, a Registered Small Animal Dietician and Reproductive Specialist, a successful rodeo rider and horse trainer, and other experienced and friendly "animal-people." Faculty advisement is available and highly recommended.

VETERINARY TECHNOLOGY MAJOR

The Veterinary Technology Major is accredited by the American Veterinary Medical Association. The program is experience oriented with lecture classes complementing hands-on laboratory work. To qualify for this program, the student must complete the following requirements:

1. Submit application, which can be obtained from Veterinary Technology office. Applications are due finals week of each semester.
2. Complete the following coursework:
   a. Animal Sci 180
   b. Animal Sci 401
   c. Animal Sci 501 and 510
   d. Animal Sci 511 and 512
3. One semester of Animal Science 181A: Field Experience at Veterinary Hospital.

The remainder of the classes for veterinary technology may be taken in any sequence. The coursework may be completed in 2 years, but most students take longer. A grade of D or F in any class is grounds for dismissal from the Veterinary Technology Program.

Students enrolled in Animal Science 420, 421, 422, 423, 410, 411, 412, 413 must participate in daily kennel duty.

The faculty encourage your participation in the Veterinary Technology Club.

CORE CLASSES FOR VETERINARY TECHNOLOGY

		UNITS
Animal Sci 181	Field Work	3
Animal Sci 401	Orientation to Vet Tech	1
Animal Sci 501	Principles of Animal Science	3
Animal Sci 510	Animal Health & Disease Control	3
Animal Sci 511/512	Anatomy & Physiology of Animals	4
English 101	College Reading and Composition I	3
	*Health and Physical Education	3
	*Humanities	3
	*Language and Rationality	6
Math 115	Elementary Algebra	5
	*Natural Sciences	3
Co Sci 530	Personal Computer Application Software or	3
CAOT 82	Microcomputer Software Survey in the Office	3
	*Social and Behavioral Sciences	3

**See Associate Degree Option 3 for choices*

VETERINARY TECHNOLOGY MAJOR

		UNITS
Animal Sci 402	Topics in Veterinary Technology	2
Animal Sci 410/411	Animal Nursing I/Laboratory	3
Animal Sci 412/413	Animal Nursing II/Laboratory	3
Animal Sci 420/421	Clinical Procedures I/Laboratory	3
Animal Sci 422/423	Clinical Procedures II/Laboratory	3
Animal Sci 430/431	Veterinary Clinical Pathology	3
Animal Sci 435/436	Veterinary Radiography/Laboratory	3
Animal Sci 441	Large Animal Nursing Laboratory	2
Animal Sci 470	Laboratory Animal Care	3
Animal Sci 480	Clinical Experience for Animal Technicians	9
Biology 3	Introduction to Biology	4
Chem 51	Fundamentals of Chemistry I	5
Micro 20	General Microbiology	4

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.

		UNITS
FALL SEMESTER I		
A S L 3	American Sign Language III	4
A S L 16	Creative Signing	2
A S L 30	Fingerspelling I	1
A S L 40	Introduction to Deaf Culture	3
†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 S L 4	American Sign Language IV	4
A S L 101D	American Sign Language Lab	1
A S L 5	Introduction to Interpreting	3
A S L 31	Fingerspelling II	1
*Anthro 104	Human Language and Communication	3
*Speech 121	The Process of Interpersonal Communication Or	3
*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
*Gen Ed	Math 115 (or equivalent)	5
SPRING SEMESTER II		
A S L 55	Interpreting	4
A S L 65	Transliterating	4
A S L 23	Professional Issues and Practice II	2
*Health 10	Health Education	2
*Phys Ed	Physical Education Activity	1
*Gen Ed	Natural Sciences	3
Electives:		
A S L 15	Linguistics of A S L	3
A S L 25	Conversational American Sign Language	2

† 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.

REQUIRED COURSES

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

Anthropology

Certificate of Achievement

REQUIRED COURSES

		UNITS
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	3
Anthro 106	Introduction to Archaeology	4
Anthro 109	Gender, Sex and Culture	3
Anthro 111	Laboratory in Human Biological Evolution	2
Anthro 119	An Introduction to Forensic Anthropology	2
Anthro 121	Anthropology of Religion, Magic, and Witchcraft	3
Anthro 125	Introduction to Folklore	3
Anthro 132	Native Peoples of North America	3
Anthro 141	Medical Anthropology	3
Anthro 145	Sophomore Seminar in Anthropology	1
Anthro 150	Current Topics in Anthropology	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.

REQUIRED 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	3
Geog 31/GIS 31	Introduction to Geographic Information Systems	3
Geology 1	Physical Geology	3
Geology 6	Physical Geology Laboratory	2
Geology 12	Introduction to the Geology of California	3
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 1	Introduction to Architecture	1
Arch 5	Architectural Drawing I	3
Arch 9	Elements of Architecture	3
Arch 20	Methods of Construction	2
Arch 41	Architectural Model Building	2
[2,3,5]Math 146	Technical Mathematics II	3
SECOND SEMESTER		
Arch 6	Architectural Drawing II	3
Arch 21	Materials of Construction	3
Arch 33	Basic Architectural Design I	3
Arch 37	Computer Aided Design and Drafting	3
	General Education	3
THIRD SEMESTER		
Arch 7	Architectural Drawing III	3
Arch 22	Equipment of Buildings	3
Arch 34	Basic Architectural Design II	3
[5]English 28	Intermediate Reading and Composition	3
	Or	
English 101	College Reading and Composition I	3
	[1]Architectural Elective	3
FOURTH SEMESTER		
Arch 8	Architectural Drawing IV	3
Arch 10	Freehand Drawing I	2
Arch 12	Architectural Rendering	2
	Art Elective	3
[6]Health 10	Health Education	2
[6]Phys Ed	Physical Education Activity	1
	General Education	6

[1]*Suggested Electives: Arch 15, 18, 23, 52, 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.*

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 1	Introduction to Architecture	1
Arch 5	Architectural Drawing I	3
Arch 6	Architectural Drawing II	3
Arch 7	Architectural Drawing III	3
Arch 9	Elements of Architecture	3
Arch 10	Freehand Drawing I	2
Arch 12	Architectural Rendering	2
Arch 20	Methods of Construction	2
Arch 21	Materials of Construction	3
Arch 22	Equipment of Buildings	3
Arch 33	Basic Architectural Design I	3
Arch 34	Basic Architectural Design II	3
Arch 37	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 — 18 Units

DRAWING CONCENTRATION
Art 203, 204, 205, 206, 300, 503 — 18 Units

PAINTING CONCENTRATION
Art 300, 304, 203, 204, 305, 205, 503 — 21 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, 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.

		UNITS
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 614	Graphic Communications I	4
Art 615	Graphic Communications II	4
Art 616	Graphic Communications III	4
Art 617	Graphic Communications IV	4
Art 620	Illustration I	3
Art 621	Illustration 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

		UNITS
Biology 6	General Biology I	5
Biology 40	The Science of Biotechnology	3
Chemistry 101	General Chemistry I	5
Philosophy 29	The Ethics of Biotechnology	1

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

		UNITS
Biology 3	Introduction to Biology	4
	or	
Biology 10	Natural History I	4
And 3 units from the following:		
Biology 11	Natural History II (any module: A, B, C, etc.)	1
Biology 12	Natural History and Field Biology I (any module: A, B, C, etc.)	1
Biology 18	Natural History and Field Biology II (any module: A, B, C, etc.)	1
Select 8 additional units from the following:		
Agriculture 950	Introduction to Wildlife Management	2
Astronomy 1	Elementary Astronomy	3
Astronomy 2	Elementary Astronomy Laboratory	1
Astronomy 3	Introductory Astronomy	4
Geology 1	Physical Geology	3
Geology 6	Physical Geology Laboratory	2
Meteorology 3	Introduction to Weather and Climate	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

		UNITS
Biology 6	General Biology I	5
Biology 7	General Biology II	5
Chemistry 102	General Chemistry II	5

Plan to attend a four-year college or university after graduating from Pierce. See Associate Degree Option 1 on page 48.

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
Oceano 12	Lectures in Marine Biology	3
Oceano 14	Marine Biology Laboratory	2
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
Oceano 2	Introduction to Marine Biology	3
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.

REQUIRED COURSES

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

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

		UNITS
[2]Acctg 1	Introductory Accounting I	5
Acctg 2	Introductory Accounting II	5
Acctg 15	Tax Accounting I	3
Acctg 17	Payroll Accounting	2
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Finance 1	Principles of Finance	3
Mgmt 13	Small Business Management I	3
[1]CAOT 32	Business Communications	3
CAOT 78	Microcomputer Accounting Applications for the Electronic Office	3

ELECTIVE AREA SUBJECTS (15 UNITS MINIMUM)

		UNITS
*Bus 10	Fundamentals of Tax Return Preparation	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

	UNITS
Natural Sciences	3
Humanities	3
Health and Physical Education	3
Social and Behavioral Sciences	3

**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.

REQUIRED COURSES

		UNITS
Bus 1	Introduction to Business	3
Acctg 1	Introductory Accounting I	5
Acctg 2	Introductory Accounting II	5
Acctg 17	Payroll Accounting	2

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

		UNITS
Bus 1	Introduction to Business	3
	or	
Mgmt 13	Small Business Management I	3
Acctg 1	Introductory Accounting I	5
Acctg 2	Introductory Accounting II	5
CAOT 78	Microcomputer Accounting Applications 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
	or	
Bus 10	Fundamentals of Tax Return Preparation (Volunteer Income Tax Assistance course)	3

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

		UNITS
Bus 1	Introduction to Business	3
Acctg 1	Introductory Accounting I	5
Finance 1	Principles of Finance	3
Finance 2	Investments	3
Finance 8	Personal Finance	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

		UNITS
[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 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
Acctg 2	Introductory Accounting II	5
Finance 1	Principles of Finance	3
	or	
Finance 8	Personal Finance	3
Int Bus 1	International Trade	3
Mgmt 6	Public Relations	3
Mgmt 31	Human Relations for Employees	3
Mgmt 33	Personnel Management	3
Market 31	Retail Merchandising	3
Real Es 1	Real Estate Principles	3
Supv 1	Elements of Supervision	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]Accng 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	3
	or	
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
Int Bus 21	The Environment of International Business	3
Bus 1	Introduction to Business	3
Marketing 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

		UNITS
[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)

		UNITS
Acctg 2	Introductory Accounting II	5
Finance 1	Principles of Finance	3
	or	
Finance 8	Personal Finance	3
Mgmt 6	Public Relations	3
Mgmt 13	Small Business Management I	3
Market 1	Principles of Selling	3
Supv 1	Elements of Supervision	3
Int Bus 1	International Trade	3
Int Bus 6	International Marketing	3
Int Bus 11	International Management	3

ADDITIONAL 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 - Management

This certificate prepares students for first level management jobs, support positions in personnel management, and positions in any firm utilizing self-managed 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

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
Plus 3 additional units from:		
Mgmt 6	Public Relations	3
Mgmt 31	Human Relations for Employees	3
Mgmt 33	Personnel Management	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 Applications: Spreadsheet	3
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 105	Arithmetic for College Students	3
	Total	32

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 REQUIREMENTS (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 3

60 units minimum with at least 32 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
	or	
*CD 81-82	Field Work in Child Development I - II *(For students employed in the field)*	6

In addition, student will select courses from below to complete 32 units in the major.

CD 30	Infant Studies	3
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

(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 2

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
	or	
*CD 81-82	Field Work in Child Development I - II *(For students employed in the field)*	6

In addition, student will select courses from below to complete 36 units in the major.

CD 30	Infant Studies	3
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

(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.

CHILD DEVELOPMENT OCCUPATION CERTIFICATE PRESCHOOL TEACHER

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.

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 42	The Child in a Multi-Cultural Society	3
*CD 22-23	Practicum in Child Development I & II	(4-4)
	or	
*CD 81-82	Field Work in Child Development I & II (For students employed in the field)	(3-3)
*Eng 28	Intermediate Reading & Composition (or higher)	3

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*

Child Development Certificate Associate Teacher

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.

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)
	Or	
*CD 81-82	Field Work in Child Development I & II *(For students employed in the field)*	(3-3)

In 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*

PRESCHOOL CERTIFICATE A

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.

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

DIRECTOR, PRESCHOOL (CERT. B)

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.

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
Plus, any course from the following:		
CD 2	Early Childhood Principles and Practices	3
CD 10	Child Health	3
CD 42	The Child in a Multi-Cultural Society	3

Infant Care Teacher (Cert. C)

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.

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 30	Infant Studies	3
Plus, any course from the following:		
CD 2	Early Childhood Principles and Practices	3
CD 10	Child Health	3
CD 42	The Child in a Multi-Cultural Society	3

School Age Programs Teacher, Day Care (Cert. D)

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.

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	3
Plus, any course from the following:		
CD 2	Early Childhood Principles and Practices	3
CD 10	Child Health	3
CD 42	The Child in a Multi-Cultural Society	3

Cinema

Certificate of Achievement - Film

This certificate introduces the student to film and cinema, putting it in context with other media, surveying its history and viewing contemporary films, and learning about its composition, history and aesthetics.

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
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.

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.

		UNITS
FIRST SEMESTER		
[1]CAOT 2	Computer Keyboarding II	3
CAOT 31	Business English	3
CAOT 34	Business Terminology	2
CAOT 82	Microcomputer Software Survey in the Office (MS Office)	3
SECOND SEMESTER		
[2]CAOT 39	Word Processing: Keyboarding and Operations (MS Word)	3
[3]CAOT 92	Computer Windows Applications	2
CAOT 85	Microcomputer Office Applications: Spreadsheet (MS Excel)	3
Acctg 1	Introductory Accounting I	5
THIRD SEMESTER		
[2]CAOT 71	Voice-Recognition Software With Document Applications	3
CAOT 78	Microcomputer Accounting Applications for the Electronic Office (QuickBooks)	3
[3]CAOT 79	Word Processing Applications	3
CAOT 97	Microcomputer Office Applications: Introduction to the Internet	3
FOURTH SEMESTER		
CAOT 32	Business Communications	3
CAOT 67	Microsoft Outlook for the Office	1
[2]CAOT 86	Microcomputer Office Applications: Database (Access)	3
CAOT 88	Microcomputer Office Applications: Desktop Publishing	3
	or	
CAOT 113	Introduction to Adobe Photoshop for the Office	3
CAOT 107	Microcomputer Office Applications: Web Design for the Office (MS FrontPage)	3
	or	
CAOT 108	Presentation Design for the Office (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 - 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.

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.

		UNITS
FIRST SEMESTER		
Acctg 1	Introductory Accounting I	5
[1]CAOT 2	Computer Keyboarding II	3
CAOT 31	Business English	3
CAOT 39	Word Processing: Keyboarding and Operations (MS Word)	3
SECOND SEMESTER		
Bus 5	Business Law I	3
Mgmt 2	Organization and Management Theory	3
CAOT 78	Microcomputer Accounting Applications for the Electronic Office (QuickBooks)	3
CAOT 85	Microcomputer Office Applications: Spreadsheet (MS Excel)	3
THIRD SEMESTER		
Econ 2	Principles of Economics II	3
CAOT 32	Business Communications	3
[2]CAOT 71	Voice-Recognition Software With Document Applications	3
[2]CAOT 86	Microcomputer Office Applications: Database (Access)	3
[3]CAOT 92	Computer Applications Windows	2
FOURTH SEMESTER		
Bus 1	Introduction to Business	3
[3]CAOT 67	Microsoft Outlook for the Office	1
[3]CAOT 79	Word Processing Applications	3
CAOT 97	Microcomputer Office Applications: Introduction to the Internet	3
CAOT 108	Presentation Design for the Office (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.

		UNITS
Acctg 1	Introductory Accounting I	5
CAOT 78	Microcomputer Accounting Applications for the Electronic Office (QuickBooks)	3
CAOT 85	Microcomputer Office Applications: Spreadsheet (MS Excel)	3
CAOT 92	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.

		UNITS
[1]CAOT 2	Computer Keyboarding II	3
CAOT 82	Microcomputer Software Survey in the Office (MS Office)	3
	or	
CAOT 100	Windows-Based Computer Applications	3
CAOT 31	Business English	3
CAOT 34	Business Terminology	2
CAOT 66	Voice-Recognition Software for Computer Input	1
CAOT 39	Word Processing: Keyboarding and Operations (MS Word)	3
	or	
CAOT 84	Microcomputer Office Applications: Word Processing (WordPerfect)	3
CAOT 85	Microcomputer Office Applications: Spreadsheet (MS Excel)	3
[2]CAOT 86	Microcomputer Office Applications: Database (Access)	3
[2]CAOT 92	Computer Windows Applications	2

[1]See Pierce College Catalog description or CAOT website (www.piercecollege.edu/usr/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.

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 three courses, which lay the foundation for obtaining positions requiring Internet, desktop publishing, and advanced word processing skills.

CORE COURSES

		UNITS
[1]CAOT 2	Computer Keyboarding II	3
CAOT 82	Microcomputer Software Survey in the Office (MS Office)	3
CAOT 31	Business English	3
CAOT 34	Business Terminology	2
[2]CAOT 66	Voice-Recognition Software for Computer Input	1
CAOT 39	Word Processing: Keyboarding and Operations (MS Word)	3
	or	
CAOT 84	Microcomputer Office Applications: Word Processing (WordPerfect)	3
CAOT 85	Microcomputer Office Applications: Spreadsheet (MS Excel)	3
[3]CAOT 86	Microcomputer Office Applications: Database (Access)	3
[3]CAOT 92	Computer Windows Applications	2

ADVANCED COURSES

[2]CAOT 79	Word Processing Applications	3
CAOT 113	Introduction to Adobe Photoshop for the Office	3
	or	
CAOT 108	Presentation Design for the Office (PowerPoint)	2
CAOT 97	Microcomputer Office Applications: Introduction to the Internet	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 Spring semester only.

[3]Offered Fall 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 the program provides students with the skills required by business offices for using the Internet to locate and capture information.

		UNITS
CAOT 82	Microcomputer Software Survey in the Office (MS Office)	3
	or	
CAOT 100	Windows-Based Computer Applications	3
CAOT 39	Word Processing: Keyboarding and Operations (MS Word)	3
[1]CAOT 79	Word Processing Applications (MS Word)	3
CAOT 97	Introduction to the Internet for CAOT	3
CAOT 107	Microcomputer Office Applications: Web Design for the Office (MS FrontPage)	3

[1]Offered Spring semester only

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.

		UNITS
[1]CAOT 2	Computer Keyboarding II	3
CAOT 31	Business English	3
CAOT 34	Business Terminology	2
CAOT 82	Microcomputer Software Survey in the Office (MS Office)	3
CAOT 39	Word Processing: Keyboarding and Operations (MS Word)	3
[2]CAOT 79	Word Processing Applications (MS Word)	3
[3]CAOT 92	Computer Windows Applications	2

[1]See course description for course prerequisites and corequisites.

[2]Offered Spring semester only.

[3]Offered Fall semester only.

Computer Applications and Office Technologies - Basic Word Processing: Corel WordPerfect

Certificate Program

Students may obtain a basic word processing certificate in Corel WordPerfect by completing the courses shown below. Completion of the program provides students with the skills required for entry-level employment in offices using Corel WordPerfect software.

		UNITS
[1]CAOT 2	Computer Keyboarding II	3
CAOT 31	Business English	3
CAOT 34	Business Terminology	2
CAOT 82	Microcomputer Software Survey in the Office (MS Office)	3
CAOT 84	Microcomputer Office Applications: Word Processing (WordPerfect)	3
[2]CAOT 79	Word Processing Applications (WordPerfect)	3
[3]CAOT 92	Computer Windows Applications	2

[1]See course description for course prerequisites and corequisites.

[2]Offered Spring semester only.

[3]Offered Fall semester only.

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.

		UNITS
[1]CAOT 2	Computer Keyboarding II	3
CAOT 31	Business English	3
CAOT 34	Business Terminology	2
[2]CAOT 66	Voice-Recognition Software for Computer Input	1
[2]CAOT 67	Microsoft Outlook for the Office	1
CAOT 32	Business Communications	3
CAOT 55	Career Skills for the Workplace 2000	3
[3]CAOT 71	Voice-Recognition Software With Document Applications	3
CAOT 97	Introduction to the Internet for CAOT	3

[1]See course description for course prerequisites and corequisites.
[2]Offered Spring semesters only.
[3]Offered Fall 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 produce 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
[2]Co Sci 506	Introduction to Programming	3
[2]Co Sci 507	Programming Logic	3
	[1]Language & Rationality GE (English composition)	3
	[1]General Education	3
SECOND SEMESTER		
Co Sci 530	Personal Computer Application Software	3
Co Sci 572	Intro to Personal Computer Hardware and Operating Systems	3
	Or	
Co Sci 552	Programming in Java	3
Acctg 1	Introduction to Accounting I	5
	[1]General Education	3
THIRD SEMESTER		
Co Sci 508	Visual BASIC	3
Co Sci 533	Advanced Personal Computer Applications	3
	Technical Elective	3
	[1]General Education	3
Philos 9	Symbolic Logic 1	3
	or	
	Math Elective (120 or higher)	3-5
FOURTH SEMESTER		
Co Sci 541	Advanced Visual Basic and Database Programming	3
Co Sci 560	Business Systems Design Using Oracle Developer	3
	Technical Electives	6
	[1]General Education	3

[1]See Catalog, Associate Degree Requirements, Option 2. See Pierce counselor for advisement.

[2]Satisfies General Education requirement, Option 2-D2

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 553, Co Sci 554 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]Co Sci 508	Visual BASIC	3
Co Sci 530	Personal Computer Application Software	3
[1]Co Sci 533	Advanced Personal Computer Applications	3
[1]Co Sci 541	Advanced Visual Basic and Database Programming	3
[1]Co Sci 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	Programming in Java	3
Acctg 1	Introductory Accounting	5
	Total	23

CERTIFICATE OF ACHIEVEMENT IN PERSONAL COMPUTER APPLICATION SPECIALIST

		UNITS
Co Sci 530	Personal Computer Application Software	3
[1]Co Sci 533	Advanced Personal Computer Applications	3
Co Sci 572	Introduction to Personal Computer Hardware and Operating Systems	3
	Total	9

CERTIFICATE OF ACHIEVEMENT IN DATABASE PROGRAMMING SPECIALIST

		UNITS
[1]Co Sci 508	Visual BASIC	3
[1]Co Sci 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 produce graduates with the skills needed to produce computer programs in a technical environment or transfer to a 4-year 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.

		UNITS
FIRST SEMESTER		
Co Sci 501	Introduction to Computers & Their Uses	3
[2]Co Sci 506	Introduction to Programming	3
[2]Co Sci 507	Programming Logic	3
	[1]Language & Rationality GE (English composition)	3
	[1]General Education	3
SECOND SEMESTER		
Co Sci 516	Beginning Computer Architecture and Organization	3
Co Sci 539	Programming in C	3
Math 261	Calculus I	5
Phil 9	Symbolic Logic	3
	[1]General Education	3
THIRD SEMESTER		
Co Sci 536	Introduction to Data Structures	3
Co Sci 540	Object Oriented Programming in C++	3
Co Sci 552	Programming in Java	3
Math 262	Calculus II	5
	[1]General Education	3
FOURTH SEMESTER		
Co Sci 532	Advanced Data Structures and Introduction to Databases	3
Co Sci 546	Advanced Computer Architecture and Organization	3
	Technical Elective	3
	[1]General Education	3

[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 one class from the following list:

Co Sci 508, 530, 572, 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

		UNITS
Co Sci 506	Introduction to Programming	3
[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

[1]See Catalog course description for prerequisites.

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 microcomputers, minicomputers 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.

		UNITS
FIRST SEMESTER		
Co Sci 530	Personal Computer Application Software	3
Co Sci 572	Introduction to Personal Computer Hardware and Operating Systems	3
[1]Co Sci 587	Introduction to Computer Networks	3
Electrn 4A,B	Fundamentals of Electronics I	4
	General Education*	3
SECOND SEMESTER		
[1]Co Sci 534	Operating Systems	3
[1]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, B	Fundamentals of Electronics II	4
THIRD SEMESTER		
[1]Co Sci 535	Network Configuration and Control Systems	3
[1]Co Sci 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

3) Routing Technology: Co Sci 537, 578

4) Elect 8A, 8B, 44, 45, 72A, 72B, 74A, 74B.

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.

		UNITS
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.

		UNITS
[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.

		UNITS
[1]Co Sci 534	Operating Systems	3
[1]Co Sci 553	Client-Side Programming for the World Wide Web	3
[1]Co Sci 554	Server-Side Programming for the World Wide Web	3
	Total	9

[1]See catalog course description for prerequisites.

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

Dance

Certificate of Achievement - Visual And Performing Arts Through Dance

		UNITS
Art 101	Survey of Art History I	3
	Or	
Art 103	Art Appreciation I	3
Music 101	Fundamental of Music	3
	Or	
Music 111	Music Appreciation I	3
Dance 802	Modern Dance II	3
Theater 262	Special Projects	2
Dance 814	Dance Production	2
Plus 4 units from the following:		
Dance Act 401	International Folk Dance	1
Dance Act 431	Modern Dance	1
Dance Act 434	Ballet	1
Dance Act 437	Jazz Dance	1
Phys Ed 440	Social Dance	1
Dance Act 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 Act 401	International Folk Dance	1
	Or	
Dance Act 437	Jazz Dance	1
Dance Act 434	Ballet	1
Phys Ed 440	Social Dance	1
	Or	
Dance Act 446	Tap Dance	1
Phys Ed 225	Yoga Skills	1
Theater 262	Special Projects	2

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

		UNITS
FIRST SEMESTER		
[2]Electron 4A	Fundamentals of Electronics IA	3
Electron 4B	Fundamentals of Electronics IB	1
Electron 28	Electronic and Electro-Mechanical Drafting I	2
Electron 81	Projects Laboratory	1
	[1]General Education	4
SECOND SEMESTER		
[2]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 81	Projects Laboratory	1
	[1]General Education	9
THIRD SEMESTER		
Electron 26	Linear Circuits	3
Electron 63	Circuit Analysis Laboratory	1
Electron 44	Communications Electronics	3
Electron 45	Communications Electronics Laboratory	1
Electron 72A	Digital Circuits IA	3
Electron 72B	Digital Circuits IB	1
Electron 81	Projects Laboratory	1
	[1]General Education	
FOURTH SEMESTER		
Electron 48A	Integrated Circuits	3
Electron 48B	Integrated Circuits Laboratory	1
Electron 74A	Microprocessors	3
Electron 74B	Microprocessors Laboratory	1
Electron 60	Microwave Fundamentals	3
Electron 61	Microwave Fundamentals Laboratory	1
	[1]General Education	3

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.

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:

		UNITS
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:

		UNITS
Electron 72A	Digital Circuits IA	3
Electron 72B	Digital Circuits IB	1
Electron 74A	Microprocessors	3
Electron 74B	Microprocessors Laboratory	1

COMMUNICATIONS OPTION:

		UNITS
Electron 44	Communications Electronics	3
Electron 45	Communications Electronics Laboratory	1
Electron 60	Microwave Fundamentals	3
Electron 61	Microwave Fundamentals Laboratory	1

ANALOG OPTION:

		UNITS
Electron 26	Linear Circuits	3
Electron 63	Circuit Analysis Laboratory	1
Electron 48A	Integrated Circuits	3
Electron 48B	Integrated Circuits Laboratory	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

		UNITS
13 units from:		
English 84	College English as a Second Language I	5
English 85	College English as a Second Language II	5
English 86	College English as a Second Language III	5
English 87	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

		UNITS
Three courses chosen from the following:		
French 1, 2, 3 4, 5, or 6	Elementary, Intermediate, Advanced French	15
	And	
French 101	French Language Laboratory (2 semesters)	2
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

		UNITS
Geog 31/GIS 31	Introduction to Geographic Information Systems	3
Geog 32/GIS 32	GIS Applications: Arc View	3
	or	
Geog 34/GIS 34	GIS Applications: MapInfo	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

RECOMMENDED COURSES

Geog 39/GIS 39	GIS for Science, Business, and Government	3
Geog 33/GIS 33	Intermediate GIS Applications: Arc View	3
	or	
Geog 35/GIS 35	Intermediate GIS Applications: MapInfo	3
Geog 37/GIS 37	Introduction to Global Positioning System (GPS)	1
Geog 40/GIS 40	GIS Internship	1

Plan to attend a four-year college or university after graduating from Pierce.
See Associate Degree Option 1 on page 48.

Geography

Certificate of Achievement

REQUIRED COURSES

		UNITS
Geography 1	Physical Geography	3
Geography 2	Cultural Elements of Geography	3
	or	
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
	or	
Meteorology 3	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

		UNITS
Geology 1	Physical Geology	3
Geology 6	Physical Geology Laboratory	2
Plus 10 additional units from		
Geology 2	Earth History	3
Geology 7	Earth History Laboratory	2
Geology 10	Introduction to Environmental Geology	3
	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	3
Geology 17	The Age of Dinosaurs	3
Geology 22	Geomorphology	4
Chem 101	General Chemistry I	5
Physics 6	General Physics I	4
Physics 101	Physics for Engineers and Scientists I	5

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.

		UNITS
FIRST SEMESTER		
AST 1	Automotive Engines	5
AST 2	Suspension, Brakes, and Power Systems	5
[2]Math 146	Technical Mathematics II	3
Health 10	Health Education	2
SECOND SEMESTER		
AST 3	Engine Diagnosis and Tune-Up	5
AST 4	Starting and Charging Systems/ Automotive Electrical Circuits	5
AST 32	Automotive Service Technology Projects Laboratory - Chassis and Suspension Systems	1
Phys Ed	Physical Education Activity	1
[1]Phys Sci 1	Physical Science I	3
THIRD SEMESTER		
AST 5	Standard Transmissions, Clutches, Drive Lines, and Differentials	3
AST 6	Automatic Transmissions	5
AST 7	Air Conditioning	3
AST 34	Automotive Service Technology Projects Laboratory - Electrical Circuits	2
English 28	Intermediate Reading and Composition	3
FOURTH SEMESTER		
AST 20	Automotive Electronic Computer Control Systems	3
AST 21	Computer - Controlled Electronic Fuel Injection Systems	3
AST 23	Enhanced Area Clean Air Car Course	3
AST 36	Automotive Service Technology Projects Laboratory - Standard Transmissions, Clutches, Drivelines, and Differentials/Air Conditioning	1
	General Education	6

[1]Meets Natural Science Requirement for graduation general requirement.

[2]Math 115 or 125 may be substituted. Any of these courses fulfills the Communication and Analytical Thinking Graduation General Education Requirement.

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 Diagnosis and June-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 Transmissions	5
AST 7	Air Conditioning	3
AST 20	Automotive Electronic Computer Control Systems	3
AST 21	Computer-Controlled Electronic Fuel Injection Systems	3
AST 23	Enhanced Area Clean Air Car Course	3
AST 32	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 Projects Laboratory - Standard Transmissions, Clutches, Drivelines and Differentials/Air Conditioning	1

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.

		UNITS
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 June-Up	5
AST 20	Automotive Electronic Computer Control Systems	3
AST 21	Computer-Controlled Electronic Fuel Injection Systems	3
AST 23	Enhanced Area Clean Air Car Course	3

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

Industrial Technology - Drafting - Mechanical

Associate in Arts Degree

Faculty Advisor: L.W Humphrey

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.

		UNITS
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	Technical Mathematics II	3
[2]Ind Tek 205	Technical Descriptive Geometry	3
Ind Tek 210	Mechanical Computer-Assisted Drafting III	3
Ind Tek 215	Mechanical Computer-Assisted Drafting IV	3
	General Education	1
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	6
FOURTH SEMESTER		
Ind Tek 410	Mechanical Computer-Assisted Drafting VII	3
Ind Tek 415	Mechanical Computer-Assisted Drafting VIII	3
	General Education	9

[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 computer-assisted drafting.

		UNITS
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

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.

		UNITS
Ind Tek 205	Technical Descriptive Geometry	3
Ind Tek 310	Mechanical Computer-Assisted Drafting V	3
Ind Tek 315	Mechanical Computer-Assisted Drafting VI	3
Ind Tek 410	Mechanical Computer-Assisted Drafting VII	3
Ind Tek 415	Mechanical Computer-Assisted Drafting VIII	3

Industrial Technology - Numerical Control Programming

Associate in Science Degree

Faculty Advisor: R. D. Smetzer

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

Numerical Control is a system (sometimes referred to as CAM - Computer-Aided Manufacturing) using specially prepared instructions, developed by the N/C Programmer, to control the operation of various manufacturing equipment such as machine tools, inspection machines, woodworking machines, laser machines, and robots. The following associate degree is offered at the suggestion of the Industry Advisory Committee for Numerical Control. General Education requirements follow Associate Degree Requirements, Option 2 in this catalog. Courses may be taken in any sequence as long as the prerequisites are met. Students majoring in this area must meet each semester with Numerical Control Faculty Advisor R. D. Smetzer.

		UNITS
FIRST SEMESTER		
[1]Ind Tek 105	Industrial Print Reading	3
Ind Tek 130	Technology of Metal Machining Processes I	3
Ind Tek 140	Fundamentals of CNC Technology	3
Math 146	Technical Mathematics II	3
(The above may provide entry level employment opportunities.)		
SECOND SEMESTER		
Ind Tek 230	Technology of Metal Machining Processes II	3
Ind Tek 244	CNC Programming and Machine Operation - Lathe	3
Gen Ed	General Education	3
	Elective	3
THIRD SEMESTER		
Ind Tek 346	CAM Programming using Surf CAM	3
Ind Tek 248	CNC Programming and Machine Operation - Mill	3
Ind Tek 330	Technology of Metal Machining Processes III	3
Gen Ed	Natural Science	3
FOURTH SEMESTER		
Gen Ed	Language and Rationality	3
	General Education	6
	Elective	3

[1]Drafting and Tooling Design Majors completing this Degree or Certificate may substitute Ind Tek 110.

Certificate Program

The Certificate Program is designed for students wishing to complete only the technical requirements of the Numerical Control Programming Associate Degree program, secure employment and possibly complete the Numerical Control Programming Associate Degree while employed and attending Pierce College part time. It is also designed to enable mechanical drafting, tool design, machine shop, and other majors to secure certification in Numerical Programming as a second area of expertise. The notes applying to the Associate Degree apply also to the certificate program. Courses may be taken in any sequence as long as the prerequisites are met. However, the first five courses listed provide a possible entry-level employment package. Students working on this certificate program must meet each semester with R. D. Smetzer, NC Faculty Advisor.

		UNITS
[1]IndTek 105	Industrial Print Reading	3
Ind Tek 130	Technology of Metal Machining Processes I	3
Ind Tek 140	Fundamentals of CNC Technology	3
Ind Tek 230	Technology of Metal Machining Processes II	3
Ind Tek 346	CAM Programming using Surf CAM	3
Ind Tek 244	CNC Programming and Machine Operation - Lathe	3
Ind Tek 248	CNC Programming and Machine Operation - Mill	3
Ind Tek 330	Technology of Metal Machining Processes III	3
	Industrial Technology Course	3
Math 146	Technical Mathematics II	3

[1]Drafting or Tooling Design Majors completing this certificate may substitute Ind Tek 110.

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.

		UNITS
[1]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	3
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
[1]IndTek 105	Industrial Print Reading	3
Ind Tek 130	Technology of Metal Machining Processes I	3
Ind Tek 140	Fundamentals of CNC Technology	3
Ind Tek 230	Technology of Metal Machining Processes II	3
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

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: L. W Humphrey

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 - 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-Acetylene Welding II	3
Ind Tek 261	Arc Welding I	3
Ind Tek 262	Arc Welding II	3

Certificate of Achievement - 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, 4, 5, or 6	Elementary, Intermediate, Advanced Italian	15
	And	
Italian 8	Conversational Italian	2
	Total	17

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.

This program was prepared with the cooperation of the Pierce College Journalism Advisory Committee, made up of professionals from the print media and from broadcasting and from public relations. It is designed for students who plan to enter those professions after two years of college. In addition to the A.A. degree, a certificate of achievement as a journalism major is awarded to the student upon graduation.

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 SUBJECTS (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 a weekly newspaper.

REQUIRED COURSES

		UNITS
Journal 100	Social Values in Mass Communication	3
Journal 101	Collecting and writing News	3
Journal 202	Advanced Newswriting	3
Journal 217	Publication Laboratory	2
Photo 10	Beginning Photography	3
3 units from:		
Art 501	Beginning Two-Dimensional Design	3
Broadcast 1	Fundamentals of Radio and Television Broadcasting	3
Co Sci 501	Introduction to Computers & Their Uses	3
Geography 2	Cultural Elements of Geography	3
Journal 106	Mechanics of Expression	3
Poli Sci 1	The Government of the United States	3
Poli Sci 7	Contemporary World Affairs	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.

Plan to attend a four-year college or university after graduating from Pierce. See Associate Degree Option 1 on page 48.

Latin American Studies

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.

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.

Associate in Arts Degree

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 from 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	3

Students are encouraged to include a study abroad semester or summer in their academic program.

Faculty Advisors

Prof. Thomas E O'Dea	Phone 719-6452	Faculty Office 3104
Prof. Richard Mc Millan	Phone 710-2893	Faculty Office 3003

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 - 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

		UNITS
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 AB 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	
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.

		UNITS
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 - 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.

REQUIRED COURSES

		UNITS
Music 161	Intro to Electronic Music	3
Music 261	Electronic Music Workshop (3 semesters)	9
Music 201	Harmony I Students must be familiar with notation, scales, intervals, keys and common musical terms. (Information and skills taught in Music 101.)	3
Music 321	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 and Nursing Departments.

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 your 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:

GENERAL EDUCATION

		UNITS
Psych 1	General Psychology	3
	or	
Psych 6	Human Behavior	3
Anatomy 1	Intro to Human Anatomy	4
	and	
Physiol 1	Intro to Human Physiol	4
	or	
Physiol 8 & 9	Integrated Human Anatomy and Physiol	8
Micro 1	Intro to Microbiology	5
	or	
Micro 20	General Microbiology	4
English 101	College Reading and Composition	3
Soc 1	Intro to Sociology	3
	or	
Soc 2	American Social Problems	3
	or	
Anthro 102	Human Ways of Life: Cultural Anthropology	3
Speech 101	Oral Communication I	3
Psych 41	Life Span Psychology	3
	Math Competency (see Associate Degree requirements)	

Some prerequisites may be required for these general education courses. These may be satisfied through challenge examinations or high school course equivalencies. 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.

NURSING CURRICULUM

		UNITS
FIRST SEMESTER		
Nursing 400	Adult Health Care I	4
Nursing 402	Pharmacology	1
Nursing 407	Geriatric Health Care	3
Nursing 408	Psychosocial Aspects of Health Care	1
Nursing 401	Client Care Seminar I (optional)	1
SECOND SEMESTER		
Nursing 403	Adult Health Care II	5
Nursing 405	Psychiatric Health Care	4
Nursing 424	Client Care Seminar II (optional)	1
THIRD SEMESTER		
Nursing 404	Maternal And Newborn Health Care	4
Nursing 406	Adult Health Care III	5
Nursing 444	Client Care Seminar III (optional)	1
FOURTH SEMESTER		
Nursing 414	Adult Health Care IV	5
Nursing 415	Pediatric Health Care	4
Nursing 441	History, Trends and Issues of Nursing	1
Nursing 417	Client Care Seminar IV (optional)	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.

GRADE REQUIREMENTS

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 Board of Registered Nursing.

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.

This program offers a combination of theory and practice so that the student can become a successful newspaper or magazine photographer. Publication job opportunities are open to graduates with this training. Laboratory work includes taking the picture, developing the film and printing the photograph. In addition to the A.A. degree, a certificate of achievement as a photojournalism major is awarded to the student upon graduation.

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
[1]Photo 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
Co Sci 501	Introduction to Computers and Their Uses	3
Coop Ed	Cooperative Work Experience Education	3
English 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

		UNITS
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

		UNITS
Health 8	Women's Personal Health	3
	Or	
Health 11	Principles of Healthful Living	3
Phys Ed 90A	Individual Physical Fitness Laboratory	1x2
Phys Ed 90B	Individual Physical Fitness Laboratory	1x2
Phys Ed 225	Yoga Skills	1x2
Phys Ed 102	Swimming Skills	1
Dance Act 431	Modern Dance	1
	Or	
Dance Act 434	Ballet	1
Phys Ed 440	Social Dance	2
	Or	
Dance Act 446	Tap Dance	2
Plus 4 units from the following:		
Phys Ed 203	Badminton Skills	1
Phys Ed 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

		UNITS
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

		UNITS
Physics 101	Physics for Engineers and Scientists I	5
Physics 102	Physics for Engineers and Scientists II	5
Physics 103	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 deparement 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)	3
	or	
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	Understanding and Applying Statistics	4

Sign Language

See American Sign Language in this section

Plan to attend a four-year college or university after graduating from Pierce.
See Associate Degree Option 1 on page 48.

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

		UNITS
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 Advanced Conversation	3
	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 - 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

		UNITS
Spanish 5	Advanced Spanish I	5
Spanish 8	Conversational Spanish	2
Spanish 9	Hispanic Civilization	3
	Or	
Spanish 10	Latin American Civilization and Culture	3
Spanish 48	Introduction to Spanish Translation I	3
Spanish 49	Introduction to Spanish Translation II	3

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.

		UNITS
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
	General Education	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
	General Education	6
	Elective	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 273	Advanced Acting	2
Theater 450	Beginning Stage Make-up	2
	General Education	6
FOURTH SEMESTER		
Theater 125	Dramatic Literature	3
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
	General Education	3
	Elective	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

Transfer Program to CSUN *(Courses to take at Pierce)*

Theater 100, 270, 271 or 273, Theater 300, 310, Theater 411, 450.

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.

		UNITS
FIRST SEMESTER		
[1]Theater 100	Introduction to Theater	3
Theater 270	Beginning Acting	3
Theater 300	Introduction to Stage Craft	3
Theater 411	Costuming for the Theater	2
	General Education	4
SECOND SEMESTER		
Theater 315	Introduction to Theatrical Scenic Design	3
Theater 411	Costuming for the Theater	2
Theater 450	Beginning Stage Make-up	2
	Electives	4
	General Education	4
THIRD SEMESTER		
Theater 310	Introduction to Theatrical Lighting	3
Theater 411	Costuming for the Theater	2
	General Education	6
	Electives	4
FOURTH SEMESTER		
Speech 101	Oral Communication I	3
[2]Theater 342	Technical Stage Production	2
Theater 411	Costuming for the Theater	2
	Electives	4
	General Education	3

[1]Meets Associate Degree General Education Requirement Humanities.
[2] Same as Technical Theater 342, which may be substituted.

Transfer Program to CSUN *(Courses to take at Pierce)*

Theater 100, 270, and one course from 271 or 273, Theater 300, 310, Theater 411, 450.

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.

		UNITS
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	2
	General Education	4
SECOND SEMESTER		
Theater 315	Introduction to Theatrical Scenic Design	3
Theater 342	Technical Stage Production	2
Theater 450	Beginning Stage Make-up	2
	Elective	2
	General Education	6
THIRD SEMESTER		
Theater 310	Introduction to Theatrical Lighting	3
[2]Theater 342	Technical Stage Production	2
	Elective	4
	General Education	6
FOURTH SEMESTER		
Speech 101	Oral Communication I	3
Theater 411	Costuming for the Theater	3
	Electives	6
	General Education	3

[1]Meets Associate Degree General Education Requirement Humanities
[2] Same as Technical Theater 342, which may be substituted.

Transfer Program to CSUN *(Courses to take at Pierce)*

Theater 100, 270 and one course from 271 or 273, Theater 300, 310, Theater 411, 450.

Women's Studies

Offered by the History/Humanities Department

Certificate of Achievement - Women's Studies

The 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.

		UNITS
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 Human Sexuality	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 part-time 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).
3. During summer sessions be enrolled in at least 1 other class in addition to CWEE.

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. During summer session one other course must be taken concurrently. May be repeated once for a total of 6 units.

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

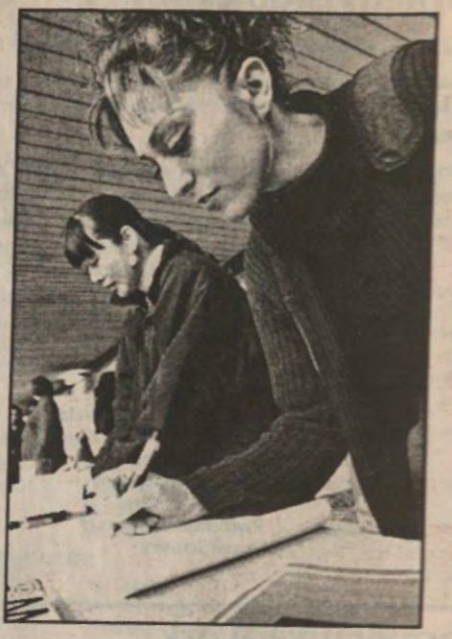
A program of on-the-job learning experiences which enables the student to attend college full-time one semester and work full-time the following semester. Under this plan the work need not relate directly to the student's educational goal. The student must have completed at least 7 units of credit and 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



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

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, Cal Poly Pomona, 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 McCormick, at 818-710-2516 or mccormea@piercecollege.edu

Transfer Information Websites:

As a student, the World Wide Web 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

University of California Transfer Information:

Pathways: www.ucop.edu/pathways

California State University Transfer Information:

CSU Mentor: www.csumentor.edu

California Private and Independent Transfer Information:

AICCU: www.aiccu.edu

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 Partnerships.

Pierce College and California State University Transfer Partnerships

Pierce has transfer agreements with CSU Northridge and CSU Channel Islands. Please see a Pierce Counselor, the Transfer Center and the Pierce College Transfer website for details. Click on partnerships.

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 2004-2005 IGETC:

AREA 1- ENGLISH COMMUNICATIONS

(CSU - 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, 111, 137, 138, 139, 500, 501, 502; **Cinema** 3, 18, 104; **Music** 111, 112, 121, 122; **P.E.** 802, 803, 804; **Theater** 100, 110, 115, 125 *(same as English 213)*.

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; **Spanish** 3*, 4*, 5*, 6*, 9, 12, 15, 25, 26, 65;

AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES

(3 courses from at least 2 disciplines 9 semester units or 12-15 quarter units)

Anthropology 102, 103, 105, 106, 109, 132; **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; **History** 3, 4, 5, 6, 8, 11+*, 12+*, 13+*, 14+*, 15 *(same as Economics 10)*, 20, 21, 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; **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+, 2+, 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+, 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, 11ABC+, 46; **Environmental Science** 2; **Microbiology** 1+, 20+; **Oceanography** 2+ or 12+, 14+; **Physiology** 1+, 8+, 9+; **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.

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, 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 2004-2005

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, 201; 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, 11ABC, 12ABC, 18ABC, 39, 40, 46; Environmental Science 2; Microbiology 1, 20; Oceanography 2, 12, 14; 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; 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/QUANTITTATIVE 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, 111, 137-139, 201, 300, 500, 501, 502, 700, 708AB; Cinema 3, 18, 104; 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; Physical Education 801, 802, 803, 804, 812, 814, 818; Theater 100, 110, 115, 125, 270, 271, 273.

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; 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, 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);

D-3 Ethnic Studies: Spanish 10, 26;

D-4 Gender Studies: Anthropology 109, 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, 15, 20, 21, 27, 30, 39, 40, 86, 87; Spanish 10, 16;

D-7 Interdisciplinary Social/Behaviorial Science: Journalism 100; Speech 121, 122;

D-8 Political Science, Government and Legal Institutions: Law 3; Political Science 2, 7, 14, 19;

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: Sociology 1-4, 8, 11, 13, 28.

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 801; 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. Up to 18 units of 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 non-residents), 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, 125, 132, 141, 145*, 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

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, 554, 572, 587

Dance - 801, 802, 803, 804, 812, 814, 818, 819, 820, 821

Dance Activities - 401, 431, 434, 437, 446

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, 20A, B, C, D, E, F, 21, 22, 31, 32, 33, 34, 35, 36, 37

Geology - 22A*, B*, C*, and D*

GIS - all courses

History - all courses

Humanities - 6, 11, 12, 13, 14, 61, 88, 89

Industrial Technology

- Automotive Service Technology - 1, 20, 21, 25
- 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

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

Nursing 185, 285, 442, 450

Oceanography - 12, 14

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 - 103, 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

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 1A, 2, 10, 62, 63, 64, 65, 66

Nursing 442, 450, 463

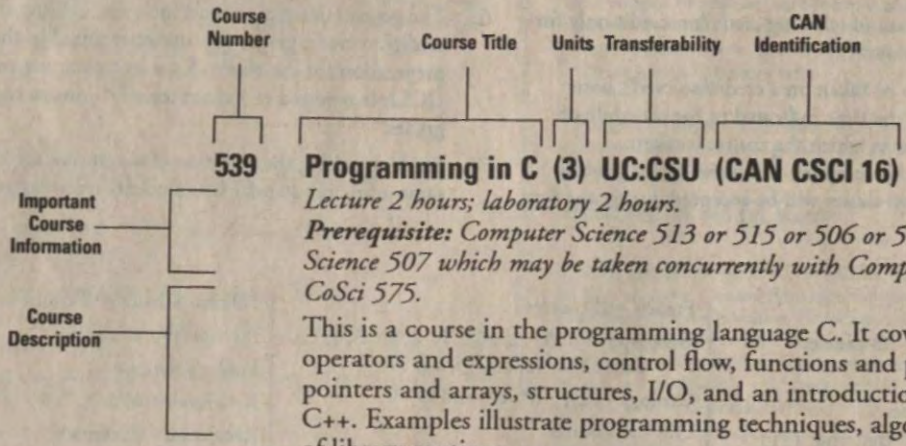
Personal Development - all courses

Spanish - 8, 24, 101

* All students graded on credit/no credit basis only. A petition is not needed.

How to Read the **Course Descriptions**

SAMPLE COURSE DESCRIPTION



Lecture 2 hours; laboratory 2 hours.

Prerequisite: *Computer Science 513 or 515 or 506 or 508; AND Computer Science 507 which may be taken concurrently with Computer Science 539, or CoSci 575.*

This is a course in the programming language C. It covers data types, operators and expressions, control flow, functions and program structure, pointers and arrays, structures, I/O, and an introduction to procedural C++. Examples illustrate programming techniques, algorithms, and the use of library routines.

Key To Transfer Credit Codes

UC This course is acceptable for credit at all branches of the University of California.

†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

1 Introductory Accounting I (5) UC:CSU (CAN BUS 2)
Lecture 5 hours.
Introduces the fundamental principles and concepts of accounting as a basis for financial communication in business. Includes the study of the procedures in maintaining records of business transactions and the preparation of financial statements for the sole proprietorship service or merchandising firm. Topics in cash, receivables and temporary investments, inventories, plant assets and intangible assets, payroll, notes payable and other current liabilities, concepts and principles.

2 Introductory Accounting II (5) UC:CSU (CAN BUS 4) (ACCT 1+2=CAN BUS SEQ A)
Lecture 5 hours.
Prerequisite: *Accounting 1 with a grade of "C" or better.*
Continues the introductory phase of accounting. Topics in partnership formation, income division and liquidation, corporate organization and equity rights, earnings, dividends, long-term liabilities, investments in stocks and bonds, consolidated statements, international operations, statement of cash flows, financial statement analysis, annual reports, managerial accounting principles, cost systems, cost behavior, budgeting, cost-volume-profit analysis, accounting for decentralized operations, transfer pricing, differential analysis, product pricing, and capital investment analysis.

15 Tax Accounting I (3) CSU
Lecture 3 hours.
Prerequisite: *Accounting 1 with a grade of "C" or better.*
Deals with tax laws, accounting procedures, and preparation of individual Federal and California income tax returns.

17 Payroll Accounting (2)
Lecture 2 hours.
Prerequisite: *Accounting 1 with a grade of "C" or better.*
Concerns methods and procedures in accounting for payrolls and in the preparation of Federal and State payroll tax returns using up-to-date Computer Software Packages. Techniques surveyed vary from the manual to current automated payroll procedures. Also acquaints students with the various phases of the Social Security benefits and taxes and State and Federal laws relating to the payment of wages and salaries.

911-941
Cooperative Work Experience Education
See Business - Cooperative Work Experience Education.

Accounting - Computerized

See course listings under **Computer Applications and Office Technologies**

Addiction Studies

1 Understanding Addiction and Counseling (3)
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)
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 100 hours working at an agency or in some situation directly in the field of chemical dependency, in addition to the classroom hours. Those seeking CAADC 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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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)
Lecture 3 hours.
***Note**: This course provides 54 hours of continuing education for CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
Course covers specific strategies and basic life skills found to be essential to consolidate ongoing mature recovery from the disease of addiction including diet and exercise; therapy for core issues; emotional expression; cognitive restructuring; self-esteem; values clarification; and spiritual growth and development.

17 Women And Addiction (3)
Lecture 3 hours.
***Note**: This course provides 54 hours of continuing education for CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
Explores the nature of domestic violence; its signs and symptoms and its impact upon individuals, families, and society. Training in cultural ant 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 CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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. (Formerly Addiction Studies 99C)
***Note**: This course provides 54 hours of continuing education for CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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. (Formerly Addiction Studies 99D)
***Note**: This course provides 54 hours of continuing education for CAC/CADC, NCAC/MAC, CATS, and MFT/LCSW. Officially approved provider.*
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.

Administration of Justice

1 Introduction to Administration of Justice (3) UC:CSU
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 development of the criminal law. This course includes an examination of constitutional provisions, legal research, legal analysis, and how the criminal law is used as a social force. The most common sections of the Penal Code will be examined.

4 Principles and Procedures of the Justice System (3) CSU
Lecture 3 hours.
This course will provide an in-depth study of the law enforcement procedures from an incident or happening, through investigation, detention, arrest prosecution, trial, and final disposition. The rules of criminal procedure, arrest, search, and seizure will be examined.

67 Community Relations I (3) UC:CSU
Lecture 3 hours.
This course explores the relationships between all aspects of the justice system and the community it serves. Principal emphasis will be placed upon the working relationships of law enforcement agencies and a diverse community.

Agriculture

AGRICULTURE COURSES HAVE BEEN RENAMED AS ANIMAL SCIENCE, EQUINE SCIENCE (MULE HANDLING) AND PLANT SCIENCE

Agriculture - General	Animal Science and Plant Science 100-199
Agribusiness	Animal Science 200-299
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
Horticulture and Landscaping	Plant Science 700-899
Natural Resources Management	Plant Science 900-999

911, 921, 971, 981 Cooperative Work Experience Education - Agriculture
See Cooperative Work Experience Education

American Sign Language/ Interpreting

1 American Sign Language I (4) UC:CSU
Lecture 4 hours.
Recommended: *Concurrent enrollment in ASL 101A.*
Normally offered in the Fall semester only develops basic vocabulary and grammar of American Sign Language. Emphasis is placed on receptive skills. Incorporates vital aspects of the Deaf culture and community.

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 101B.*
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.

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 ASL 101C 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.

4 American Sign Language IV (4) UC:CSU
Lecture 4 hours.
Prerequisite: *American Sign Language 3 with a grade of "C" or better.*
Corequisite: *Concurrent enrollment in ASL 101D 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.

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 the basic theories, guidelines, principles, and practices of interpreting/transliterating, including an historical overview, role of the interpreter, and analysis of various sign systems.

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.

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 techniques of facial expression, characterization, body movement, and spatialization as it relates to American Sign Language. Development of expressive sign language skills through the use of poetry, songs, and skits.

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 settings requiring specialized language and/or techniques. Students will develop vocabulary appropriate for a variety of settings, analyze the RID Code of Ethics, and develop professional decision-making and problem-solving skills.

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.
Continues the study of theoretical and practical issues related to various settings requiring specialized language and/or techniques. Continued development of vocabulary appropriate for a variety of settings, in-depth analysis of the RID Cod of Ethics, and continued development of professional decision-making and problem-solving skills.

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.

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.

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

see also **Physiology**

1 Introduction to Human Anatomy (4) UC:CSU (CAN BIOL 10)
Lecture 3 hours; Laboratory 3 hours.
***Recommended Preparation**: Biology 3 or 6.*
***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

COURSES FORMERLY LISTED AS "AGRICULTURE"

Agriculture - General	Animal Science 100-199
Agribusiness	Animal Science 200-299
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.

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.

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 earliest evidence of the origin of culture to the development of urbanization. The course examines the prehistoric process and sequence for various parts of the world, including Europe, the Americas, Africa, and Asia.

106 Introduction to Archaeology (4) UC:CSU (CAN ANTH 6)
Lecture 3 hours; Laboratory 2 hours
May be offered as modules 106A (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.
Presents a cross-cultural comparison of gender roles as viewed from the biological/evolutionary, cultural, psychological, prehistoric and historic perspectives, as they relate to the status of women and men in tribal and modern 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.
Presents an introduction to the theory and method of field work in archaeology. This is a class in archaeological excavation and related data gathering methods. The course emphasizes field techniques through actual student participation in excavation, survey and related field methods.

119 Introduction to Forensic Anthropology (2) CSU
Lecture 1 hour; Laboratory 2 hours.
This course is a hands-on study of the types and nature of information that can be recovered from bones and teeth - age, sex, size, population affinity, pathology, diet, and demography.

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.

125 Introduction to Folklore (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Explores myths, legends, folktales, folk customs, festivals, music, costume, dance, and other expressions of folklore in tribal, peasant, and industrial societies. Includes an introduction to the methodology of folklore study.

132 Native Peoples of North America (3) UC:CSU
Lecture 3 hours.
Presents a survey of the Native Peoples living north of Mexico. Nations of the various culture areas are discussed as they existed at the time of European contact, during the historic period, and as they live in contemporary society today.

141 Medical Anthropology (3) CSU
Lecture 3 hours.
Presents a survey of healing systems in tribal, peasant, and industrialized societies. Shamanism, faith healing, and new age ideas are discussed. Emphasis is placed on the ritual aspects of all healing systems, including that of our modern society.

145 Sophomore Seminar in Anthropology (1)
Lecture 1 hour.
***Recommended Preparation:** Two of the following courses with a grade of "C" or better: Anthropology 101, 102, 104, 106, 109, 121, 125, 132, 141.*
This course is offered on a credit/no-credit basis only.
This course will provide an opportunity for anthropology students to explore in depth selected topics in the field. The seminar will discuss anthropological research tools and techniques. Each student will produce a paper or poster on a selected topic.

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) †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.

*† **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
*These courses may not be offered each semester

1 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.

5 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.

6 Architectural Drawing II (3) CSU*
Lecture 1 hour; Laboratory 5 hours.
***Prerequisite:** Architecture 5 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.

7 Architectural Drawing III (3) CSU*
Lecture 1 hour; Laboratory 5 hours.
***Prerequisite:** Architecture 5 or 6*
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.

8 Architectural Drawing IV (3) CSU*
Lecture 1 hour; Laboratory 5 hours.
***Prerequisite:** Architecture 6 or 7.*
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.

9 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.

10 Freehand Drawing I (2) UC:CSU - RPT 1*
Lecture 2 hours; Laboratory 2 hours.
***Corequisite:** Architecture 12.*
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.

12 Architectural Rendering (2) CSU*
Lecture 1 hour; Laboratory 3 hours.
***Corequisite:** Architecture 10.*
Teaches the techniques of graphic rendering using various media. Stresses both freehand drawing and drafting board methods.

18 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.

30 Methods of Construction (2) CSU*
Lecture 2 hours.
Emphasizes methods of construction in wood, steel and concrete.

31 Materials of Construction (3) CSU*
Lecture 3 hours.
Prerequisite: Architecture 5 and 20.
Studies the nature and characteristics of materials, along with their history, manufacturing, fabrication and appropriate uses for given construction purposes.

32 Equipment of Buildings (3) CSU*
Lecture 3 hours.
Prerequisite: Architecture 5 and 20.
Applies the basic principles of design, selection and operation of equipment in buildings to water, plumbing, heating, air conditioning, lighting and acoustics.

33 Construction Estimating (3) CSU*
Lecture 3 hours.
Studies methods used in determining quantities and costs of labor and materials as related to construction.

30 Residential Planning (3) CSU - RPT 3*
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 5.
Offers a study of the single family residence, its layout, livability, size, orientation, cost, furnishings, equipment and decoration.

33 Basic Architectural Design I (3) UC:CSU*
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 5 and 9.
Explores the nature and limitations of materials using two-dimensional studies of form and composition in black and white and color.

34 Basic Architectural Design II (3) UC:CSU*
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 9 or 33.
Extends the theory of color and the use of various materials in three- dimensional compositions.

37 Computer Aided Design and Drafting (3) CSU*
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: Architecture 5 and 6
An introduction to computer design and drafting for architecture. Provides a survey of current CAD systems plus hands-on experience.

41 Architectural Model Building (2) UC:CSU*
Lecture 1 hour; Laboratory 3 hours.
Acquaints students of architecture with the techniques and materials for constructing architectural study models.

52 Concrete Construction Design and Practice (3) CSU*
Lecture 3 hours.
Offers a practical introduction to modern concrete design theory and construction practices as employed in the construction of buildings, roads, flood control works, and miscellaneous structures.

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 SEQ 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 for 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.

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) 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 apply 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:CSU
Lecture 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:CSU
Lecture 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.

200 Introduction to Drawing (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Introduces the student to the artistic process of drawing. Involves a variety of media, emphasizing visual perception. The class consists of studio-based projects and museum/gallery visits. Discussion of subject matter, composition and the core elements, line, shape, and value will be topics covered.

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.

400 Introduction to Printmaking (3) UC:CSU (CAN ART 20)
Lecture 1 hour; Laboratory 5 hours
Introduces students to basic printmaking processes such as etching, silk-screen, lithography, wood block and linoleum block printing.

500 Introduction to Design (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
Planned to satisfy the General Education Requirement in Art for non-Art majors; also recommended for Art majors.
Provides an introduction to art. Integrates the theory of design with historical and cultural foundations. Applies basic design techniques to problems in visual perception and critical analysis.

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.

614 Graphic Communications I (4)
Lecture 2 hours; Laboratory 4 hours.
***Recommended**: Art 501 and 201.*
Introduces visual communication with emphasis on advertising art and design. Included are principles of advertising, advertising media, layout, typography, and the preparation of artwork for printing. Introduction to computers, and graphic applications. 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 QuarkXpress, 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 QuarkXpress, 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 QuarkXpress, 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.

660 Computer Applications for 3-D Animation (3) CSU
Lecture 2 hours; Laboratory 2 hours.
***Prerequisite**: Art 604.*
This course introduces the student to computer applications for 3-D animation. Emphasis is placed on the application of the principles of design to completed projects. Primary software used is 3-D Studio Max.

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.

706 Clay Sculpture I (2) *UC:CSU
**UC transferability pending approval.*
Lecture 1 hour; Laboratory 3 hours.
***Recommended preparation:** Art 501 or 502.*
Provides experiences in designing and constructing contemporary sculptural forms using a variety of ceramic processes such as slab forming, press molding and slip casting from original molds.

707 Clay Sculpture II (2) *UC:CSU
**UC transferability pending approval.*
Lecture 1 hour; Laboratory 3 hours.
***Prerequisite:** Art 706 with a grade of "C" or better.*
Continuation of Art 706 with emphasis on individualized course of study.

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 708A & 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 710A 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 710A & 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 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

*†**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 of the universe at an introductory level designed primarily for non-science majors. Emphasizes the physical principles essential to fundamental understanding in astronomy. Discusses the tools of the astronomer, stars and stellar evolution, galaxies and quasars, cosmology, the solar system, and extra-terrestrial 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 orbits, spectra of stars, and classification of galaxies. Telescopic observations will be made whenever possible and will 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.

*†**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 Transmissions (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 Automotive Electronic Computer Control Systems (3)
Lecture 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 Area Clean Air Car Course (3)
Lecture 2 hours; Laboratory 3 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 2003 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 owner-operator vehicle maintenance.

26 A-6 Electrical/Electronic Systems Alternative (1)
Lecture 1 hour.
A State of California approved A-6 alternative 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.

27 A-8 Engine Performance Alternative (1)
Lecture 1 hour.
A State of California approved A-8 alternative 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.

28 L-1 Advanced Engine Performance Alternative (1)
Lecture 1 hour.
A State of California approved L-1 alternative 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.

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.

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.

52 Ford MLR Brakes, Steering and Suspension (2)
Lecture 1 hour; Laboratory 2 hours.
(Offered Fall 2004 as AST 99F)
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 Ford MLR Electrical Systems (2)
Lecture 1 hour; Laboratory 2 hours.
(Offered Fall 2004 as AST 99E)
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 SEQ A)
Lecture 3 hours; Laboratory 6 hours.
***Prerequisite**: Chemistry 60 or 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 SEQ A)
Lecture 3 hours; Laboratory 6 hours.
***Corequisite**: Chemistry 60 or 101.*
***Note**: Biology 6 is not a prerequisite for Biology 7*
***Note**: This class meets off campus several times during the semester.*
Designed to complete the study of the basic principles of biology. Deals with embryology and development of vertebrates, structure and physiology of vertebrate organ systems, evolution of vertebrates. Examines 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) **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.

18 Natural History and Field Biology 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.

39 Sexually Transmitted Diseases (3) CSU
Lecture 3 hours.
***Note**: This course awards 45 contact hours of continuing education for nurses in the State of California.*
This course represents a broad overview of the nature and causes of the sexually transmitted diseases, and approaches to prevention and control. This course also explores issued raised by these diseases in fields of law, public health, economics and research.

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.

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.

185 Directed Study - Biology (1) †UC:CSU RPT - 2

285 Directed Study - Biology (2) †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

†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.

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.
Includes a general overview of law and society and specifically the law of contracts, personal property and bailments, consumer protection, real property and the environment, estates and wills. Gives attention to logical reasoning and the application of rules of law to everyday business activities.

10 Fundamentals of Tax Return Preparation (3)
Lecture 3 hours.
Introduces the fundamentals of Federal and California income tax laws.

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 I (5) CSU (CAN CHEM 6)

Formerly Chemistry 3
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.*

Presents a basic introduction to chemistry for the student with no previous background in chemistry. Emphasizes the principles of inorganic chemistry and provides an introduction to elementary organic chemistry. It is intended for nursing, home economics, physical therapy, elementary education, animal health technology, terminal 2-year agriculture, and liberal arts students who need a one semester physical science laboratory course. For many students it is a terminal course in chemistry, but it serves also as the most appropriate prerequisite to Chemistry 70. It is not intended for students planning to take Chemistry 101.

60 Introduction to General Chemistry (5) ΔUC:CSU

Formerly Chemistry 10.
Lecture 3 hours; Laboratory 4 hours.
This class may be offered periodically as an Internet-based class with an on-campus laboratory.
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.*

Presents the elementary principles of general chemistry with special emphasis on problem solving and the development of a basic chemical vocabulary. It is an introductory course for science majors who have not taken high school chemistry or who need a refresher course. The laboratory introduces the basic techniques used in chemistry. This course serves to prepare students for Chemistry 101.

101 General Chemistry I (5) UC:CSU (CAN CHEM 2)

Formerly Chemistry 1
Lecture 3 hours; Laboratory and discussion 6 hours.
This class may be offered periodically as an Internet-based class with an on-campus laboratory.
Prerequisites:
1. Chemistry 60 or equivalent with a grade of "C" or better.
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; oxidation-reduction; phase changes; and an introduction to M.O. theory.

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 or placement results 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@pierce.laccd.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 SEQ A)

Formerly Chemistry 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
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.

211 Organic Chemistry for Science Majors I (5) UC:CSU

Formerly Chemistry 14
Lecture 3 hours; Laboratory and discussion 6 hours.
Prerequisite: *Chemistry 102 or its equivalent with a grade of "C" or better.*

Presents the structure, nomenclature and properties of organic compounds as well as the mechanisms of organic reactions and syntheses. The laboratory presents the techniques of preparation, isolation, and analysis of organic compounds employing 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 aldehydes, ketones, carboxylic acids and amines. It will also cover more specialized topics including the following: amino acids and peptides, mass spectrometry, difunctional compounds, polycyclic benzoid hydrocarbons, heterocyclic compounds, the organic chemistry of silicon, NMK techniques and strategies in modern organic synthesis. A mechanistic approach to reactions and a focus on multistep synthesis will be emphasized throughout the course.

221 Biochemistry for Science Majors (5) UC:CSU

Formerly Chemistry 15
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.

This course is intended as a preparation for careers in the physical and biological sciences, medical and dental professions, veterinary and agricultural science, nutrition and food chemistry, and related fields. Its objective is twofold. The first is to complete the study begun in Chemistry 211 of the organic functional groups of aldehydes, ketones, enolates, carboxylic acids and their derivatives, and amines and their derivatives. The second is to provide a thorough introduction to the principles, concepts and terminology of biochemistry, with an emphasis on amino acids, proteins, enzymes and intermediary metabolism. The laboratory presents introductory biochemical techniques including spectroscopy, dipeptide analysis, protein purification, enzyme assays and various types of chromatography.

185 Directed Study - Chemistry (1) †UC:CSU - RPT 2

285 Directed Study - Chemistry (2) †UC:CSU

385 Directed Study - Chemistry (3) †UC:CSU

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

† 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.

Δ No-credit if taken after Chemistry 101.

Child Development

1 Child Growth and Development (3) UC:CSU
Lecture 3 hours.
(Equivalent to Psychology 11. Credit not given for both courses.).
This course studies human development from conception through pregnancy, infancy, childhood and adolescence. Particular emphasis is placed on the process and theories through which a human being reaches physical, social, psychological and mental maturity.

2 Early Childhood: Principles and Practices (3) CSU
Lecture 3 hours.
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.
In this class, the student will develop and implement a creative curriculum for young children in the areas of dramatic play, music/movement, blocks and art. Emphasis will be on environments that enhance creativity and diversity.

4 Creative Experiences for Children II (3) CSU
Lecture 3 hours.
Development, implementation and evaluation of appropriate curriculum in the areas of language arts, natural and physical sciences, math, perceptual-motor development and the social sciences. Lecture, demonstration and participation will emphasize creating a supportive, environmental classroom designed for young children.

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
A comprehensive study of the primary socializing agents in a young child's life. It will take an in-depth look at the family and it's interrelationships with the child, school, peers and community. All agencies will be studied within a multi-cultural context.

22 Practicum In Child Development I (4) CSU
Prerequisite: *Child Development 1, 2, 3, and 4.*
The first semester of practicum teaching experience in an early childhood school setting under the supervision of a master teacher and college instructor/coordinator. This course provides the practical application of studies covered in the prerequisite courses.

23 Practicum In Child Development II (4) CSU
Prerequisite: *Child Development 22.*
The second semester of practicum teaching experience in an early childhood school setting under the supervision of a master teacher and college instructor/coordinator. This course provides the practical application of studies 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
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
Prerequisite: *Child Development 38.*
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
The philosophy and principles of relating to children with varied cultural backgrounds, including the implications and applications in teaching of young children. Includes curriculum planning.

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.
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)
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.

81 Field Work in Child Development I (3) CSU
Prerequisite: Child Development 1, 2, 3, and 4.
The first semester of supervised work experience and seminar for currently employed directors, teachers, assistant teachers and aides in the schools. This course will substitute for Child Development 22 for certificates or Associate of Arts Degree. Limited to students employed in schools 20 hours a week.

82 Field Work in Child Development II (3) CSU
Prerequisite: Child Development 81.
The second semester of supervised work experience and seminar for currently employed directors, teachers, assistant teachers and aides in schools. Refinement of teaching practices and practical application of studies covered in previous courses.

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.

18 Main Currents in Motion Pictures (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Presents a survey of feature film trends since World War II, utilizing a thematic approach which analyzes motion pictures as they reflect changing social values. Representative films are shown.

104 History of Documentary Films (3) UC:CSU
Lecture 3 hours
An historical overview of the art and craft of documentary and non-fiction films from the silent era to contemporary times, both American and foreign, with an emphasis on the "classics", propaganda, educational, docudrama and avant-garde.

Computer Applications and Office Technologies

1 Computer Keyboarding I (3)
Lecture 2 hours; Laboratory 3 hours.
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.*
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 with a grade of "C" or better.*
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 I (5)
Lecture 5 hours.
***Prerequisites**: CAOT 2 and 71.*
Offered in the Fall semester only.
Presents an overview of structure and functions of law offices. Students learn about different specialty areas of law such as bankruptcies, wills, and estates. Emphasis is placed on developing personal and professional ethics, understanding legal terminology, preparing general legal documents such as verifications, affidavits, lawsuits, power of attorneys, legal forms, demand letters and calendaring. Provides an understanding of the court system and procedures.

24 Legal Secretarial Procedures II (5)
Lecture 5 hours.
Course may be taken before CAOT 23.
Offered in the Spring semester only.
Introduces structure and functions of law offices and prepares students for employment in legal environments. Course focuses on personal and real property, trial preparation, discovery and pretrial activities, and family and criminal law. Students prepare warranty deeds, land sale contracts, mortgages and notes, lease agreements, retainer agreements, medical records requests, complaints, subpoenas, stipulations, jury instructions, judgments on verdicts, petitions for adoption, report on bail procedures, and a report on the grand jury.

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 or English 28 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 on-line) 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.

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.
Course focuses on the important skills needed to survive in today's work force. Modules emphasize specific skills such as telephone techniques, records management, and job search techniques.

64 Office Administration Laboratory (1) - RPT 2
Laboratory 2 hours.
Prerequisite: Concurrent enrollment in or completion of CAOT 39, 75, 78, 79, 82, 84, 85, or 86.
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.
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.
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.
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. 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) 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. 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. 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
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: *CAOT 39 or 84 and CAOT 2.*
Provides instruction and hands-on training in desktop publishing using desktop publishing sofware with IBM-compatible microcomputers, laser printers, scanners, and other software programs. Includes preparing advertisements, fliers, business forms, reports, newsletters, and presentations.

92 Computer Windows Applications (2) CSU - RPT2
Lecture 1 hour; Laboratory 2 hours.
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.

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, Microsoft Internet Explorer and Netscape Communicator, 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 page 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.
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.*
Develops skill in evaluating and constructing Web sites using Web page design software, FrontPage. 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 an 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.

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.*
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.

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 CSCI 2)
Lecture 3 hours.

Presents an introduction to computer concepts, techniques, terminology and uses. Discusses computer hardware, system and applications software, the system development life cycle, programming languages, and information systems. Covers communication devices, methods, networks and services. Illuminates computer trends, ethics, privacy, and security. Shows how computers can assist in a wide range of personal, commercial and organizational activities. Provides familiarity with typical computer applications, which include word processors, spreadsheets, databases, graphics, programming, and the Internet and World Wide Web.

506 Introduction to Programming (3) UC:CSU (CAN CSCI 12)
Lecture 2 hours; Laboratory 2 hours.
***Prerequisite**: Mathematics 115 or 119 or one year of high school algebra and Computer Science 507 with grades of "C" or better. Computer Science 507 may be taken concurrently*

Provides an introduction to computers and computer programming using a high level programming language. Program structure, design, testing, and debugging are explored in a hands-on environment. Topics included are input, output, data types, operators and expressions, selection, repetition, data types, arrays, functions and parameter passing, and file I/O.

507 Programming Logic (3) UC:CSU
Lecture 3 hours.
***Prerequisite**: Mathematics 115 or 119 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
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.

515 Beginning COBOL Programming (3) UC:CSU (CAN CSCI 8)
Lecture 2 hours; Laboratory 2 hours.
***Prerequisite**: Computer Science 501 and 507 and one programming class from Computer Science 506, 508, 513, 516; with a grade of "C" or better*

Presents COBOL (Common Business Oriented Language), a language which facilitates the programming of business applications on computers. Students will learn to program in structured COBOL. Includes tables, sub programs, and sequential and indexed file handling techniques.

516 Beginning Computer Architecture and Organization (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours.
***Prerequisite**: 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 will continue the study of Data Structures begun in Computer Science 536. Topics will include: a detailed study of hashing methods, advanced tree topics (such as Union/Find trees and multi-way trees), graph theory, and methods for fast data retrieval from secondary storage (including extendable hashing and B-tree algorithms).

533 Advanced Personal Computer Applications (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
Lecture 2 hours; Laboratory 2 hours.
***Prerequisite**: Computer Science 572 with a grade of "C" or better.*

A first operating systems course. Linux is used as the operating system model. Topics covered include basic Linux commands, the Linux file system, basic system administration, user account management, the bash shell, basic shell scripting, and x-window. System installation, performance and security issues are also covered. This course prepares the student to take the LPI 101 Certification Exam.

535 Network Configuration and Control Systems (3) CSU
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 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
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 2 hours; Laboratory 2 hours.
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, message passing, data hiding, inheritance and poly-morphism. C+ + features include classes, constructors, destructors, friends, derived classes, virtual functions and operator overloading are studied and implemented.

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 microcomputers for database applications using Visual BASIC as a front end for database access. Includes building complete applications. Also covers ADD and SQL.

544 Advanced Operating Systems (3) UC:CSU
Lecture 2 hours; Laboratory 2 hours
Prerequisites: *Computer Science 534 and 539.*

The second of two operating systems courses. Linux is used as the operating system model. Topics covered include hardware and architecture, advanced Linux installation techniques, package management, kernel configuration, kernel modules, printer management, advanced shell scripting, networking fundamentals, and network services. This course prepares the student to take the LPI 102 Certification Exam.

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 concept of multilevel machines. Several computer architectures are compared and evaluated. The digital logic level is discussed, system bus and memory organizations are reviewed. Microarchitecture chips and busses are evaluated. Microcode is defined and microprograms are analyzed. Conventional instructions for processor families are identified. Instruction formats and addressing modes are examined in depth. CISC, RISC and parallel processing architectures are discussed. The assembly language process, macro facility; linking/loading, and simulated execution is performed as a lab exercise.

551 Introduction to the Internet and the World Wide Web (1) CSU
Lecture 1 hour.

A hands-on survey of the Internet, E-mail, information retrieval, interest groups, the World Wide Web, browsing the Web, introduction to Web publishing and the Hyper Test Markup Language (HTML).

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.

553 Client-Side Programming for the World Wide Web (3) CSU
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
Lecture 2 hours; Laboratory 2 hours
Prerequisites: *Computer Science 533, 534 and 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.

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
Lecture 2 hours; Laboratory 2 hours.

Introduces students to computer hardware, PC operating system, and network basics. A current operating system is studied in depth throughout the semester. Hardware topics range from floppy disks and drives, hard disks and controller cards, memory hardware and types and memory management, expansion cards and busses (ISA, EISA, Micro-channel, Local Bus, PCI), device interface busses (IDE, EIDE, SCSI), input and output devices, and network hardware and software. Laboratory experiences include in depth operating system exercises, system configuration and documentation, partitioning and creating logical drives on the hard disk, and examining disk structure using a utility program (such as Norton Utilities).

575 Programming for Technical Applications (4) CSU
Lecture 3 hours; Laboratory 2 hours.

The fundamentals of programming for personnel involved in the design and maintenance of computer hardware. A High Order Language is used to develop a variety of applications including technical and diagnostic programs. All aspects of the software development cycle (design, code, test, and debugging), as well as good programming practices such as top-down and modular design are stressed.

576 Network Management (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: *Computer Science 572.*

This course provides the knowledge and skills required for network administration and system management. Topics include: planning, accessing and managing network file systems; system data and file security; server concepts, management and support; server maintenance and performance management.

578 Routing Systems Design and Programming (3) CSU
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)

579 Network Administration (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 572.
This course provides the knowledge and skills required in the global connectivity of networks. Topics include: managing the network directory services; network file and data security; user automation; network auditing; network maintenance and performance optimization.

580 Routing Architecture Implementation (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 537.
Introduces students to the skills and knowledge to design and configure routers connected to a wide-area networks (WANs). Topics include common WAN protocols such as PPP, ISDN, and Frame Relay.

581 Personal Computer Upgrade and Repair (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 572 with a grade of "C" or better
The objective of this course is to teach the maintenance and repair of microcomputer systems to the level required of a one-year certificate graduate. Topics will include software and hardware installation, maintenance and repair of floppy disks, printers, memory expanders, graphic terminals and network functional blocks and their various adapters. Manuals and diagnostic software are used for numerous service calls of increasing complexity involving electronics and mechanical failures and adjustments.

585 Implementing Network Interface Directory (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 535.
Introduces students to the skills and knowledge to implement a network directory in a contemporary network operating systems (NOS) environment. Topics include advanced user and resource administration, troubleshooting, and integration with Internet domain naming services.

586 Computer Network Service and Support (3) CSU
Lecture 2 hours; Laboratory 3 hours.
Prerequisites: Computer Science 581 and 587, and one of the following: Computer Science 534, 576, or 579.
A hands-on course intended to prepare students to service and support computers, peripherals and network systems. All aspects of equipment (both hardware and software) are introduced. Tasks include installations, upgrades and trouble-shooting of storage devices, application and system software, network hardware, microcomputer devices, printers and communication devices and software.

587 Introduction to Computer Networks (3) CSU
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
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.

589 Implementing Network Communications Infrastructure (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Prerequisite: Computer Science 587.
Introduces students to the skills and knowledge to implement a network infrastructure in a contemporary network operating systems (NOS) environment. Topics include NOS-based services to support Internet and other protocol environments.

591 Computer Hardware/Software Laboratory (1) RPT 3
Laboratory 2 hours.
This short-term, open-entry/exit, supervised course will allow students to learn to use microcomputers as an educational tool and a workplace skill. The course will provide a non-threatening mode for computer training in the use of hardware and software and the internet to complete class assignments.

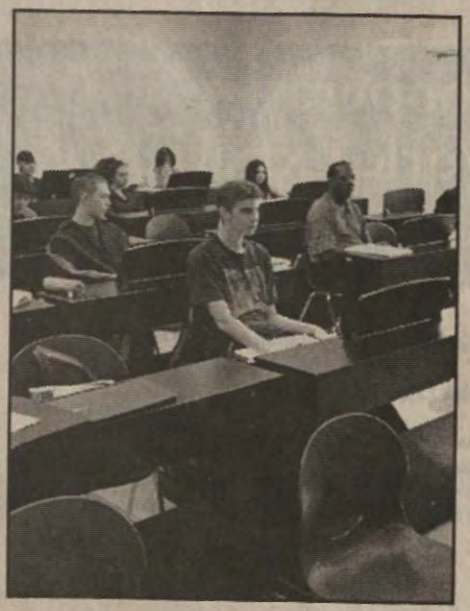
185 Directed Study - Computer Science - Information Technology (1) †UC:CSU - RPT 2

285 Directed Study - Computer Science - Information Technology (2) †UC:CSU

385 Directed Study - Computer Science - Information Technology (3) †UC: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

† 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

Cooperative Work Experience Education is offered in the subjects listed below, repeatable three semesters.

Accounting
Addiction Studies
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) RPT 1

295 Work Experience - General I (2) RPT 1

395 Work Experience - General I (3) 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.

Dance Activities

401 International Folk Dance (1) **UC:CSU - RPT 3
Activity, 2 hours.
Same as Physical Education 401.
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
Activity, 2 hours.
Same as Physical Education 431.
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
Activity, 2 hours.
Same as Physical Education 434.
Opportunity to study classical ballet technique and to explore all the characteristics of a classical ballet historically.

437 Jazz Dance (1) **UC:CSU - RPT 3
Activity, 2 hours.
Same as Physical Education 437.
Designed to train the novice and intermediate dancer in jazz techniques 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
Activity, 2 hours.
Same as Physical Education 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.

446 Tap Dance (1) *UC:CSU - RPT 3
Activity, 2 hours.
Same as Physical Education 446.
Affords the student opportunity to study and perform a style of dance in which the sound of the footwork is percussive, rhythmic and enjoyable.

****UC Credit Limit:** Any or all courses, maximum 4 units.*
*****UC Credit Limit:** Any or all courses, maximum 12 units.*

Dance

801 Modern Dance I (3) UC:CSU
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 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
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.

803 Modern Dance III (3) **UC:CSU
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
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.

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.

814 Dance Production (2) **UC:CSU - RPT 3
Lecture 1 hour; activity 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) CSU - RPT 3
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 (3) UC:CSU - RPT 3
Lecture-lab 6 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
Lecture 3 hours; Laboratory 3 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.

185 Directed Study - Dance (1) †UC:CSU - RPT 2

285 Directed Study - Dance (2) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Dance under the direction of a supervising instructor.

**UC Credit Limit: Any or all courses, maximum 4 units.*
***UC Credit Limit: Any or all courses, maximum 12 units.*

† 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.

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.
Economics I, Microeconomics, emphasizes price theory, consumer behavior, production costs, theory of the firm, market structures, and distribution of income. Other topics may include international trade, externalities, economic policy, and history of economic thought.

2 Principles of Economics II (3) UC:CSU (CAN ECON 2)
Lecture 3 hours.
May be offered as an honors section.
Economics 2, Macroeconomics, emphasizes aggregative economic analysis, including national income determination, inflation, unemployment, investment, fiscal policy, money and banking, and monetary policy. Other topics may include economic growth and development, and urban problems.

10 Economic History of the United States (3) UC:CSU
Lecture 3 hours.
Same as History 15. Credit not given for both courses.
Stresses development and change in economic institutions. Considers the nature of American capitalism and the effects of industrialization on American economic life.

16 Economics of Sports (3) *UC:CSU
**UC transferability pending approval.*
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) CSU
Lecture 3 hours.
Examines theories vs. the realities of how economies work, from capitalism to Marxism, in various economic groups - Organization for Economic Cooperation and Development (OECD) countries, transition economies, Newly-Industrialized Nations (NICS), and Less Developed Countries (LDCs). Considers the controversy of globalization.

185 Directed Study - Economics (1) †UC:CSU - RPT 2

285 Directed Study - Economics (2) †UC:CSU

385 Directed Study - Economics (3) †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

†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

1 Introduction to Teaching (3) CSU
Lecture 3 hours.

This is a pre-professional course intended for students considering a teaching career. Presents the issues and problems involved at all levels of American education. Includes such areas as the historical, social, philosophical and psychological foundations and organization of education, and examines the contributions of teachers to the profession, to students, and to the community.

6 Methods and Materials of Tutoring (1)
Lecture 2 hours.

A course offering instruction in tutoring techniques, group dynamics, interpersonal skills, record-keeping, organizational skills, and study skills. The course explores concepts of cultural differences and values, body language, gesture, and spoken language.

40 College Success Seminar (3) UC:CSU
Lecture 3 hours.
Same as Education 99C.

This course will introduce issues related to higher education that impact student success. Topics will include an overview of academic success skills, value and purpose of higher education, Pierce College policies and procedures, ethics and responsibility, diversity in higher education, educational strategies and planning, interpersonal communication, career development, learning assessments, health issues, and self-assessment techniques.

200 Introduction to Special Education (3) UC: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) 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

2 Introduction to Electronics (3) CSU
Lecture 3 hours.

Presents an overview of electronics and provides a general consumer understanding for the non-technical student. Emphasis is on the relationship of this field to other scientific fields, industry, business, the home, and other users. The course will include lectures, laboratory demonstrations, and software utilization. This course is designed for students not majoring in 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 4A and 4B.*

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 4A and 4B.*

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 4A and 4B, 6A and 6B.*
***Recommended:** Concurrent enrollment in Electronics 8B.*

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 4A and 4B, 6A and 6B.*
***Recommended:** Concurrent enrollment in Electronics 8A.*

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.

10 Mathematics of Electronics I (3) CSU
Lecture 3 hours.
Presents principles of basic algebra, equations, factoring, fractional equations, solutions to systems of equations, basic logarithms, power of ten, and basic units of electronics. Emphasis on solutions of problems as applied to electronics. Requires an electronic calculator.

12 Mathematics of Electronics II (3) CSU
Lecture 3 hours.
Presents principles of trigonometry, vectors, logarithms, theory of steady state alternating current circuits. Emphasis on solutions of electronics problems. Requires an electronic calculator.

26 Linear Circuits (3) CSU
Lecture 3 hours.
Recommended Preparation: *Electronics 8A and 8B.*
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 8A and 8B, 72A and 72B.*
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 sub-circuits, 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 8A and 8B, 72A and 72B.*
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 8A and 8B.*
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 8A and 8B.*
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 8A and 8B.*
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 6A and 6B.*
Recommended: *Concurrent enrollment in Electronics 8A.*
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 72A.*
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 72A and 72B.*
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 72A and 72B.*
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.

911-941
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 computer-assisted 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 courses

A mid-level course in the concepts and skills of mechanical computer-assisted 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.

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 20A 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.

22 Technical English (3)
Lecture 3 hours.
***Prerequisite**: Eligibility for English 21 or higher.*
Includes training for students in the technical and industrial fields in writing, reading, listening, and speaking, with emphasis on the writing of technical reports, directives, memoranda, specifications. Includes preparation and presentation of oral reports and preparation of an occupational resume.

23 Advanced Vocabulary (3) (NDA)
Lecture 3 hours.
Teaches techniques of enlarging and enriching the individual's vocabulary. Includes a study of the history of language and a survey of the varied elements, including those of Greek and Latin, which make up the English language. Includes the study of semantics.

28 Intermediate Reading and Composition (3)
Satisfies reading and composition competency requirements for AA 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.

33 Basic Vocabulary (3) (NDA)
Lecture 3 hours.
***Prerequisite**: English 20 with a grade of "C" or better, or placement in English 21 or 86.*
Enlarges and enriches the student's vocabulary through a systematic study of word meanings, structure and origins. Introduces the study of semantics. Develops spelling ability Teaches the use of dictionaries and other tools for building vocabulary.

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.

67 Writing Laboratory (0.5) (NDA)
Laboratory 1 hour
Students are given individual help by a teacher and tutors in improving their writing. Emphasis is placed on organizing, spelling, punctuation, grammar and mechanics, as well as the composing process.

68 Reading Laboratory (0.5) (NDA)
Laboratory 1 hour
Improving college reading comprehension and interpretation. Emphasis on vocabulary, sentence meaning, paragraph meaning, and finding main ideas.

77 Content-Specific English: Job Search/Success for ESL Students (3) (NDA)
Lecture 3 hours.
This course is designed to assist the non-native speaker of English in developing skills necessary to finding employment and moving toward advancement in the workplace. Special emphasis is placed on reading, writing and speaking skills specifically related to searching for, securing and retaining employment.

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, sentence structure, reading, vocabulary, 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.*
Intended for students whose native tongue is not English. Introduces students to English pronunciation patterns, basic sentence patterns, and elementary communication skills. Emphasizes reading improvement for comprehension, developing a sight vocabulary, and learning word-attack skills.

83 College Conversational English as a Second Language (3) (NDA) - RPT 1
Lecture 3 hours.
***Prerequisite**: Appropriate skill level demonstrated through the ESL placement process.*
Intended for students whose native tongue is not English. Emphasizes basic language acquisition skills, including intonation patterns, American idioms, sentence patterns, grammar as check for language correctness. Also included are listening skills, reading for vocabulary and comprehension, and guided writing.

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.*
Intended for students whose native tongue is not English. An intensive multi-skills course emphasizing basic aspects of English grammar, punctuation, spelling, sentence structure. Includes speaking and listening skills, reading for vocabulary and comprehension, and guided writing.

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.*
For students whose native tongue is not English. Includes drill in the construction of sentences and their word order, grammar, idioms, punctuation, capitalization, vocabulary, and spelling. Also includes reading for comprehension and practice in paragraph writing.

86 College English as a Second Language III (5) UC:CSU
Lecture 5 hours.
***Prerequisite**: Appropriate skill level demonstrated through the ESL placement process, or English 85 with a grade of "C" or better.*
For students whose native tongue 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 skills course designed for advanced ESL students. Includes reading for comprehension, skimming, scanning techniques, as well as exercises in critical reading and non-prose reading. Will improve vocabulary through various word study exercises.

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. Required for English majors.

102 College Reading and Composition II (3) UC:CSU (CAN ENGL 4) (ENGLISH 101+102=CAN ENGL SEQ A)
Lecture 3 hours.
***Prerequisite**: English 101 with a grade of "C" or better.*
Literature, critical analysis and composition. Concentrates on types of literature and the development of critical judgment. Emphasizes written analysis of short stories, poetry, novels, and drama, using logical reasoning and strategies or argumentation. Builds on the reading and writing skills developed in English 101. Required for English majors.

103 Composition and Critical Thinking (3) UC:CSU
Lecture 3 hours.
***Prerequisite**: English 101 with a grade of "C" or better.*
A course specifically designed to deal with the issues of critical thinking and written expression. It builds on the reading and writing skills developed in English 101. Papers of greater length and depth are required.

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.
Introduces the great books of the world from Homer to 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 SEQ 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 SEQ 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.

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.
Concentrates on the later comedies and tragedies, beginning with the problem comedies, and proceeding through 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 study 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.
Focuses on major plays and works of fiction from ancient times to the present which make women their central characters. This course considers the reflection of women's changing status given by the great writers.

240 Literature and the Motion Picture I (3) UC:CSU
Lecture 3 hours.
Prerequisite: English 101 with a grade of "C" or better.
Examines the comparative arts of literature and the motion picture. Includes readings of literary classics, screenings of film classics based upon these literary sources, discussion, and writing of several 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) †UC:CSU

385 Directed Study - English (3) †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.*
† 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 Science

1 The Human Environment: Physical Processes (3) UC:CSU
Lecture 3 hours.
Examines the impacts of human activities on our physical life support system. The Scientific Method and technology, and basic principles of matter and energy provide the perspective to understand the nature of our environmental problems and what may be done to prevent future impacts and remediate those that have already occurred. Topical environmental issues (e.g. climate modification, the Ozone layer, waste disposal, air pollution, energy issues, etc.) will be examined with careful consideration of the basic science which solutions to these problems must accommodate.

2 The Human Environment: Biological Processes (3) **UC:CSU
Lecture 3 hours.
Examines the impacts of human activities on the earth's biological systems and resources. This includes discussions of the scientific basics and principles of: ecology and ecosystem development and dynamics; population dynamics; and environmental toxicology. Careful examination will be made of the scientific basis for determination of impact of pollution, agriculture, and other human activities. Finally, what has been learned will be applied to understanding the problems of establishing meaningful environmental standards and regulations, with careful consideration and emphasis of the basic scientific realities they must reflect.

7 Introduction to Environmental Geology (3) UC:CSU
Lecture 3 hours.
Same as Geology 10. Credit not given for both courses.
Studies the impact that geologic processes have on the environment and human life. Topics creating special problems and limiting future opportunities, including geologic hazards (earthquakes, volcanism, flooding, downslope movement, coastal erosion and deposition), environmental health, earth resources(water, minerals, fossil fuels, wind and geothermal power, nuclear energy) will be discussed.

9 Introduction to Air Pollution (3) UC:CSU
Lecture 3 hours.
Same as Physical Science 5. Credit not given for both courses.
Introduces the student to the sources of air pollution and the technical problems of reducing air pollution. The course includes the physics of the atmosphere, the chemistry of air pollutants, analysis methods and possible methods of pollution control.

185 Directed Study - Environmental Science (1) †UC:CSU - RPT 2

285 Directed Study - Environmental Science (2) †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.

† 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.

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.

Emphasizes the study of the stock market from a practical viewpoint, including reading of the financial pages, analysis of industrials, public utilities, mutual funds, tax free and government securities, and the proper procedure for buying and selling stocks, bonds, and options.

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. Emphasizes the ability to understand, speak, read, and write simple French. Exposes the student to the culture of France and French-speaking countries. English is used to explain grammatical concepts but otherwise the class is conducted as much as possible in French. Corresponds to the first year of high school French.

2 Elementary French II (5) UC:CSU (CAN FREN 4) (FRENCH 1+2=CAN FREN SEQ A)
Lecture 5 hours.
***Prerequisite**: French 1 or one year 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.*
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 study of basic French conversation using practical vocabulary and regular and irregular verbs in the present and past tenses. Embraces readings and dialogues based on French culture. Stresses oral communication and reading and writing for comprehension. The class is conducted entirely in French except for grammar clarification.

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. Includes more challenging texts, and further amelioration of writing and speaking through written and oral dialogues. Teaches culture of the French-speaking countries as background for conversation and reading. Class is conducted entirely in French except where grammatical concepts need English clarification.

4 Intermediate French II (5) UC:CSU (CAN FREN 10) (FRENCH 3+4=CAN FREN SEQ 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 French-speaking 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.

Develops conversational skill and fluency in relation to certain everyday situations. Emphasizes idioms, correct use of tenses of French verbs, and fundamental sentence structure.

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) †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.

†***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 main features of man's physical environment with emphasis on earth-sun relationships, globes, maps, weather, climate, landforms, soils, natural vegetation, and their patterns of world distribution.

2 Cultural Elements of Geography (3) UC:CSU (CAN GEOG 4)
Lecture 3 hours.
May be offered as an honors section.
Studies the basic human/cultural elements of geography and their correlation with the physical environment. Emphasis on population, cultural diversity; language, religion, means of livelihood, settlement patterns, political organization. Specific countries, areas, or cultural groups illustrating various topics are utilized as case studies.

3 Introduction to Weather and Climate (3) UC:CSU
Lecture 3 hours.
Same as Meteorology 3. Credit not given for both courses.
Studies the nature and causes of weather phenomena including winds, clouds, rain, lightning, tornadoes and hurricanes, solar energy, composition of the atmosphere, causes of air pollution, weather modification, the impact of weather on the human environment, and introduction to climate.

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 or concurrent enrollment.*
Covers plotting, interpolating, and interpreting of earth-sun relations; time, earth representation through globes and maps; temperature, moisture, pressure, climate, natural vegetation, soil groups, and landform evolution by tectonic forces, erosion, and deposition.

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 Anglo-America 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); review of hardware/software used in GIS; applications of GIS technology in environmental sciences, government, business; terminology; data, and spatial analysis.

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 including hands-on experience using hardware/software. Emphasis on vector-based data using ArcView and an introduction to hands-on work with raster-based data using ArcView Spatial Analysis Module.

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.*
Application of GIS fundamentals and Arc View software to a semester-long project, from inception and initial planning to data acquisition and final project design, using census and other real-world data. Use of Avenues, Spatial Analyst, and Network Analyst extensions.

34 GIS Applications: MapInfo (3) CSU
Lecture 2 hours; Laboratory 2 hours.
(Same as GIS 34. Credit not given for both courses.)
***Recommended Preparation**: Geography 31 or GIS 31, and Computer Science 501.*
A brief survey of GIS fundamentals, including hands-on experience using hardware/software. Emphasis on vector-based data using MapInfo and an introduction to hands-on work with raster-based data as background for vector maps.

35 Intermediate GIS Applications: MapInfo (3) CSU
Lecture 2 hours; laboratory 2 hours.
(Same as GIS 35. Credit not given for both courses.)
***Recommended Preparation**: Geography 34 or GIS 34.*
Application of GIS fundamentals and MapInfo software to a semester-long project, from inception and initial planning to data acquisition and final project design, using census and other real-world data

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**: Geography 31 or GIS 31, and Geography/GIS 32 (ArcView) or 34 (MapInfo) 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 GIS 37. Credit not given for both courses.)
***Recommended Preparation**: Geography 31 or GIS 31.*
Introduction to the terminology, equipment, techniques 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.)
***Prerequisites**: Geography 31 or GIS 31, and Geography/GIS 32 (ArcView) or 34 (MapInfo) 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) †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.

*†**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); review of hardware/software used in GIS; applications of GIS technology in environmental sciences, government, business; terminology; data, and spatial analysis.

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, including hands-on experience using hardware/software. Emphasis on vector-based data using ArcView and an introduction to hands-on work with raster-based data using ArcView Spatial Analysis Module.

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.*
Application of GIS fundamentals and Arc View software to a semester-long project, from inception and initial planning to data acquisition and final project design, using census and other real-world data. Use of Avenues, Spatial Analyst, and Network Analyst extensions.

34 GIS Applications: MapInfo (3) CSU
Lecture 2 hours; Laboratory 2 hours.
(Same as Geography 34. Credit not given for both courses.)
***Recommended Preparation**: Geography 31 or GIS 31, and Computer Science 501.*
A brief survey of GIS fundamentals, including hands-on experience using hardware/software. Emphasis on vector-based data using MapInfo and an introduction to hands-on work with raster-based data as background for vector maps.

35 Intermediate GIS Applications: MapInfo (3) CSU
Lecture 2 hours; laboratory 2 hours.
(Same as Geography 35. Credit not given for both courses.)
***Recommended Preparation**: Geography 34 or GIS 34.*
Application of GIS fundamentals and MapInfo software to a semester-long project, from inception and initial planning to data acquisition and final project design, using census and other real-world data

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 34 (MapInfo) 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 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.)
***Prerequisite**: Geography 31 or GIS 31, and Geography/GIS 32 (ArcView) or 34 (MapInfo) 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.

2 Earth History (3) UC:CSU (GEOL 2+7 = CAN GEOL 4)
Lecture 3 hours.
Normally offered in the Spring semester only.
Studies the evolving earth through its rock and fossil record. Incorporates concepts of plate tectonics, age dating, rock correlation and evolution to reconstruct the ever changing patterns of features, environments and organisms on the earth's surface from the formation of the planet to present day.

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.

7 Earth History Laboratory (2) UC:CSU (GEOL 2+7 = CAN GEOL 4)
Lecture 1 hour; Laboratory 2 hours.
***Prerequisite**: Geology 2 or concurrent enrollment.*
Offers opportunities to learn techniques and skills used in deciphering earth history. Includes the identification of fossils, use of maps, exercises in age dating, correlation, and reconstruction of ancient environments. Normally offered in the Spring semester only.

10 Introduction to Environmental Geology (3) UC:CSU
Lecture 3 hours.
Same as Environmental Science 7. Credit not given for both courses.
Studies the impact that geologic processes have on the environment and human life. Topics creating special problems and limiting future opportunities, including geologic hazards (earthquakes, volcanism, flooding, downslope movement, coastal erosion and deposition), environmental health, earth resources (water, minerals, fossil fuels, wind and geothermal power, nuclear energy) will be discussed.

11 Introduction to Geology: Our National Parks and Monuments (3) CSU
Lecture 3 hours.
Surveys the geological development and features of our National Parks and Monuments with emphasis upon those located in the western United States. Involves optional field trips.

12 Introduction to the Geology of California (3) UC:CSU
Lecture 3 hours.
Surveys the physical and historical geology of California. Gives consideration to the twelve geomorphic provinces into which the State is divided, and to the characteristic geological record, with particular reference to the later part of earth history.

17 The Age of Dinosaurs (3) UC:CSU
Lecture 3 hours.
May be offered as an honors section.
Studies dinosaurian evolutionary patterns, including their origins, physiology, behavior, ecological relationships, and extinction.

22 Geomorphology (4) **UC:CSU
Lecture 3 hours; Laboratory 2 hours.
***Note**: This course is taught in 1 unit modules.*
Offers a basic course in the description, evolution, and classification of landforms. The student will have an opportunity to examine representative landforms through field trips.

185 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.

*†**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.

10 Health Education (2) *UC:CSU
Lecture 2 hours. Not an activity class.
Note: Credit given for either Health 10 or Health 11, but not both.
No credit given for students who have completed Health 11.
Considers the nature and function of health in our social pattern. Conceptual analysis of major health problems designed to contribute to students' attitudes toward their roles as individuals physically, emotionally, and socially.

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.

12 Safety Education and First Aid (3) UC:CSU
Lecture 3 hours.
Does not meet health requirement for graduation.
Consists of instruction and practical application in the prevention of and care for common accidents and emergencies in the home, school, and community. Standard and advanced American Red Cross certificates may be granted upon satisfactory completion of the course. Recommended for physical education, recreation, and allied health majors.

99A Nutrition (3) **UC:CSU
***UC transferability pending approval.*
Lecture 3 hours.
The scientific principles of nutrition including the properties of nutrients and foods. Nutrition in the life cycle and its relation to health. Assigned readings, discussion of current topics, including prospectus on world nutrition; personalized dietary and activity analysis.

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 course.

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 major elements in the Western heritage from the world of the Greeks to the Age of Absolutism in the 17th century. Furthers beginning students' general education, introducing them to the ideas, attitudes, and institutions basic 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 SEQ A)
Lecture 3 hours.
Teaches historically major elements in the Western heritage from the world of the Age of Absolutism in the 17th century to the present. Furthers beginning students general education, introducing them to the ideas, attitudes, and institutions basic 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, and cultural development of the British Isles and the Empire from the earliest times to the eighteenth century.

4 History of England and Great Britain II (3) UC:CSU
Lecture 3 hours.
Traces the political, economic, and cultural development of the British Isles and the Empire from the eighteenth century to the present time.

5 History of the Americas I (3) UC:CSU
Lecture 3 hours.
Teaches the political, social, and economic development of the Americas from pre-Columbian times to the beginning of the development of nationalism.

6 History of the Americas II (3) UC:CSU
Lecture 3 hours.
Surveys the development of the various national states with special consideration of the social and political affairs of the twentieth century.

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 particular attention to the political and social development of this period. Surveys federal constitution.

12 Political and Social History of the United States II (3) **UC:CSU (CAN HIST 10) (HISTORY 11+12=CAN HIST SEQ B)
Lecture 3 hours.
Surveys the political, social, and institutional changes in the history of the United States since the Civil War.

13 The United States in the Twentieth Century (3) **UC:CSU
Lecture 3 hours.
A historical survey of the major political, economic, intellectual, and cultural movements and events of the twentieth century.

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 and the special relationship of Africa to the United States.

30 History of Modern China (3) UC:CSU
Lecture 3 hours.
Explores contemporary China by examining traditional and post-revolutionary politics, economics, social structures, and ideas. The course raises questions about how China can accommodate elements of the past while building for the future.

39 History of South Asia (3)▲ UC:CSU
▲UC transferability pending approval.
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 U. S. history from the early Colonial Era through the Civil War with special emphasis on the contribution of the African-American. Provides a background in the political and social development of the United States for students majoring in the Social Sciences and, in addition, for those who wish to gain a better understanding of the African-American in American civilization. Includes a survey of the United States Constitution.

42 The African-American in the History of the United States II (3) **UC:CSU
Lecture 3 hours.
Surveys U. S. history from the end of the Civil War to the present time, with special emphasis on the African-American 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 Mexican-American 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 1850 and analyzes the aftermath of the Mexican-American War, immigration from Mexico, the "Bracero" program, the Civil Rights movement, and the contributions of the Mexican American to the American experience.

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 en 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.*
Δ UC Credit Limit: No credit if taken after History 11 or 41.
† 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 **Agriculture** 600-699.

Horticulture, Ornamental

See course listings under **Agriculture** 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.

30 The Beginnings of Civilization (3) UC:CSU
Lecture 3 hours.

Introduces the general concepts of the humanities from ancient times to the Renaissance. Literature, ideas, and art are studied and compared in relation to their background, medium, organization, and style. Stress is placed on awareness of differences in cultural heritages, values, and perspectives as revealed in the Arts.

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 art and literature to discover the source of humanity's creative instinct. Involves art, music, literature, psychology, drama, philosophy and history.

†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.

88 Cultural Heritage of Los Angeles (3) CSU
Lecture 3 hours.

Examines the unique qualities of the greater Los Angeles area through a study of its geography, archeology; history, art, architecture and ethnic contributions. Classroom presentations will be supplemented extensively with field trips to local sites.

89 Current Musical Dramatic and Art Events (2) CSU - RPT 3
Lecture 1 hour; field trips 3 hours.

Enriches the academic experiences in art, dance, drama, and music. Expands cultural awareness of the student by providing opportunities to attend a wide variety of concerts, plays, dance, and art events; and to discuss these with faculty members and guest artists; to concentrate on one area, supplemented by the other three.

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.

†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 computer-assisted 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 computer-assisted drafting. Units include pictorial sketching, computer equipment, software manipulation, isometric projection, oblique projection, and pictorial dimensioning conventions.

205 Technical Descriptive Geometry (3)
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 computer-assisted 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 control 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.

331 Tool Design For Production (3)
Lecture 1 hour; Laboratory 5 hours.
***Prerequisite:** Industrial Technology 230.*
The student studies the tooling and fixturing necessary for production in conventional and Computer Numerical Control (CNC). The course requires a high degree of initiative on the part of the student to complete the course.

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.

911-941
Cooperative Work Experience Education - Industrial Technology
See Cooperative Work Experience Education

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.

Internet

See course listings under **Computer Applications** and **Computer Science**

International Business

1 International Trade (3) CSU
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
This course presents the challenges of marketing in the global marketplace and the most effective approaches to these challenges. It explores the top potential exports 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)
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 import regulations and gives the student familiarity with import documentation and terminology.

19 Basics of Importing (1)
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.

20 International Finance (2)
This course provides a perspective of finance theories as they apply to international transactions. It covers the methods of international payment, collections, financial risks, and tax considerations. The course covers the foreign exchange markets, the basics of working capital management and capital budgeting for foreign projects.

21 The Global Business Environment (3)
A survey of the effects on international business by the cultural, political, geographical, and technological forces of the global environment. In addition, the course provides many practical guidelines to help those who are interested in establishing successful business relationships anywhere in the world.

22 International Management (3)
This course examines the management functions in a global context. It describes the environment in which international managers operate, the role of culture and its effects on managerial issues, and the challenges of communicating effectively and achieving organizational objectives in an increasingly multicultural environment.

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.*
Stresses the fundamentals of pronunciation and the ability to understand, speak and write simple Italian. Includes basic structural aspects and incorporates basic facts on the culture, customs and geography of Italy and an introduction to Italian songs and proverbs. Corresponds to the first year of high school Italian.

2 Elementary Italian II (5) UC:CSU (CAN ITAL 4) (ITALIAN 1+2=CAN ITAL SEQ 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 to stress the fundamental abilities to understand, speak, read and write simple Italian. Continues to include basic structural aspects and expands practical conversational vocabulary and competency in using it. Continues to incorporate information on the culture and customs of Italy, and an introduction to Italian songs and proverbs. 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 elementary structure studied in Italian 1 and 2 and continues the grammar necessary for communication and for comprehension of both spoken and written Italian. Promotes fluency in Italian by immersing the student in practical situations which require extensive use of the language and by building on vocabulary and related skills through them. Continues the study of Italian life, civilization and culture and provides special attention to representative Italian literature.

4 Intermediate Italian II (5) UC:CSU (CAN ITAL 10) (ITALIAN 3+4=CAN ITAL SEQ 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 life, 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.

*†**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 SEQ 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) †UC:CSU RPT 3
Conference 1 hour per unit
Allows students to pursue Directed Study in Japanese on a contract basis under the direction of a supervising instructor.

*†**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.
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)
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.
***Prerequisite**: 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 editorial policy.

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.

911-941
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.

Offers comparative and analytical study of the law and related problems concerning Civil Rights. Due process of law, freedom of expression, freedom of religion, racial equality, and democratic processes are some major topics under consideration, with emphasis on recent court decisions and international trends.

Learning 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.

Learning Skills

1 Reading (3) (NDA) - RPT 3
Laboratory 9 hours.
Individualized, self-paced reading remediation for ESL students and/or native speakers. Program ranges from learning to read to improving comprehension and interpretation. Tutors, computer and audio-cassette programs supplement learning.

2 English Fundamentals (3) (NDA) - RPT 3
Laboratory 9 hours.
***Recommended**: Concurrent enrollment in Learning Skills 7.*
Individualized, self-paced work on punctuation, sentence structure and correctness, supplemented by computer-assisted instruction.

5 English As A Second Language: Fundamentals (1) (NDA)
Laboratory 2 hours.
Small group workshops and tutorial practice in largely oral English communication. Emphasis on vocabulary building and simple grammar structures. Students are encouraged to generate relevant English speech and writing.

6 Academic Study Skills (3) (NDA)
Laboratory 9 hours.
Course may be offered as 1 unit, 3 hour modules: 6A, 6B and 6C.
This survival skills course is designed to help students succeed in school. Students will receive individualized instruction based on a placement test which will reveal specific deficiencies in study and academic skills. Students may enroll through 12th week of the semester.

7 Basic Composition (3) (NDA)
Laboratory 9 hours.
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.

8 Resume Preparation and Job Search Skills (1) (NDA) - RPT 3
Laboratory 3 hours.
This course is designed to prepare students to develop resume writing and job search skills. A placement test and English writing sample test will be given to all students. Credit/No Credit enrollment through 12th week of the semester.

9 Metric System (2) (NDA)
Laboratory 3 hours.
Course may be offered as 1 unit, 1.5 hour modules: 9A & 9B.
This course will introduce students to the concepts of the metric system such as length, perimeter, area, volume, capacity, and weight. A placement test will be given to prescribe an appropriate metric system course. Credit/No-Credit enrollment through 12th week of the semester.

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.

11 Elementary Algebra (5) (NDA) - RPT 3
Laboratory 15 hours.
Course may be offered as 1 unit, 3 hour modules: 11A, 11B, 11C, 11D & 11E.
Students will receive individualized algebra instruction. A placement test will be given to prescribe an appropriate algebra math course. Credit/No-Credit enrollment through 12th week of the semester.

33 Nursing, Learning Skills (3) (NDA) - RPT 2
Lecture 1 hour; Laboratory 6 hours
This course is offered as a supplement to nursing in the areas of reading, writing in the workplace, applied math, biology, and listening.

39 Child Development Learning Skills (3) - RPT 2
Laboratory 6 hours
This course is offered as a supplement to the Child Development program in areas of reading, writing, math, biology, and employability skills.

60 Electronics Learning Skills - Math (3) - RPT 2
Laboratory 9 hours
The course is designed to provide students with the basic skills in math, which is required for the Electronics program.

61 Electronics Learning Skills - Writing (2) - RPT 2
Laboratory 6 hours
The course is designed to provide students with the basic skills in writing, which is required for the Electronics program.

62 GED Preparation: Literature and The Arts (1) (NDA) - RPT 2
Laboratory 3 hours.
This course is designed to prepare students to pass the general education development (GED) Literature and Arts Test. The course will include critical thinking skills, reading comprehension skills, interpretation of graphs, analysis of literature arts, fiction, poetry, drama, plays and commentaries.

63 GED Preparation: Writing Skills (1) (NDA) - RPT 2
Laboratory 3 hours.
This course is designed to prepare students to pass the general education development (GED) Writing Skills Test. It will include basic grammar and usage skills, sentence structure, capitalization, punctuation, spelling and the essay.

64 GED Preparation: Science Test (1) (NDA) - RPT 2
Laboratory 3 hours.
This course is designed to prepare students to pass the general education development (GED) Science Test. It will include biology, earth science, astronomy, geology, meteorology, chemistry and physics.

65 GED Preparation: Mathematics (1) (NDA) - RPT 2
Laboratory 3 hours.
This course is designed to prepare students to pass the general education development (GED) Mathematics Test. It will include arithmetic, metric systems, algebra, geometry, statistics, and probability.

66 GED Preparation: Social Studies(1) (NDA) - RPT 2
Laboratory 3 hours.
This course is designed to prepare students to pass the general education development (GED); Social Science Test. It will include thirteen English colonies, the Revolutionary War, inflation and its effects, various branches of government, anthropology, sociology and psychology.

185 Directed Study - Learning Skills (1) (NDA) - RPT 2
Conference 1 hour per unit.
***Credit Limit**: A maximum of 3 units Directed Study in Learning Skills may be taken for credit.*
Allows students to pursue Directed Study in Learning Skills on a contract basis under the direction of a supervising instructor.

Library Science

101 Library Research Methods (1) CSU
Lecture 1 hour.
***Note:** Knowledge and functional capability in written and spoken English are necessary for the successful completion of this course. When enrolling in this class, eligibility for English 28 or a more advanced course is recommended.*
This course teaches the student how to make independent use of library resources for maximum educational and life-long personal benefit. Basic research techniques are emphasized and specialized reference sources are examined.

102 Internet Research Methods (1) CSU
Lecture 1 hour, Laboratory 1.5 hours per week.
***Recommended:** Knowledge of Windows: Basic keyboarding skills.*
This course will focus on how to find and evaluate information and resource materials on the Internet, using a variety of applications. Principles of information access, development of search strategies, evaluation criteria and processes, and specific search tools will be covered. Issues regarding intellectual property, censorship, and online publishing 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.
Uses the case method to study problems in the organization and management of business. Emphasizes correlation of operating functions, appraising business conditions, sales, procurement, personnel, financial policies and facilities.

6 Public Relations (3) CSU - RPT 1
Lecture 3 hours.
Covers essentials for organizing and operating a public relations program. Includes study of the relations with the community; customers, stock holders and news media. Evaluates communication techniques used to improve public relations and create a favorable public image.

13 Small Business Management I (3) CSU
Lecture 3 hours.
Presents a systematic approach to successful small business operation. Covers personnel evaluation, pre-ownership preparation, management and leadership, financing, location, taxation, records, employees, purchasing, advertising, sales and credit. Emphasizes adequate planning and preparation for success.

31 Human Relations for Employees (3) CSU
Lecture 3 hours.
Covers the practical application of psychological and sociological principles to the study of human relation in business and industry. Emphasizes case studies.

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.
The student is given a working knowledge of advertising's place in the American economy. The fundamentals of advertising media, advertising agencies, consumer behavior, media strategy, the campaign, sales promotion, and public relations are all covered.

21 Principles of Marketing (3) CSU
Lecture 3 hours.
This course introduces students to various activities in the field of marketing. It provides a broad understanding of the principles involved in the distribution of commodities from the producer to the user or consumer. It covers the consumer market, consumerism, packaging and brands, pricing, wholesaling, retailing, sales promotion, personal selling and international marketing. Presentations, case studies and videotapes are used.

99A Persuasive Selling (1)
Lecture 1 hour.
This course will merge professional selling skills with communication principles. The course will help refine those skills that are most needed in the 21st century selling environment. Students will practice those selling and communication techniques that will prove to be immediately valuable.

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 for Peer Tutoring
Open to any regularly enrolled student in Pierce College.
The Mathematics Tutoring Laboratory is located in Math 1413, 9 a.m. - 5:30 p.m., Monday - Thursday, and 9 a.m. - 2 p.m., Friday. Additional mathematics tutoring is available in COSC 1512. 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.
Review of selected topics in arithmetic, including operations on fractions, ratio and proportion, rounding and estimating, geometric formulas. Introduction to algebra, including operations on signed numbers, order of operations and the distributive law, 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, relations and functions and their graphs. 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 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.*
Includes study of polynomials and rational expressions, including exponents and radicals; solution of equations and inequalities; functions and their graphs; systems of equations; exponential and logarithmic functions; Gaussian elimination; sequences; 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. Introduction and study of fundamentals of geometry and trigonometry as related to practical industrial and technical 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, sets, functions, systems of numeration and number concepts; whole numbers, integers, rational and real numbers together with their algorithms; use of manipulatives; and an introduction to computers. For students planning to teach in the elementary or junior high school.

227 Statistics (4) ΔUC: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.

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 may include an introduction to probability; 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 conics, and discrete topics, sequences and series and induction, are developed.

261 Calculus I (5) UC:CSU (CAN MATH 18)
Lecture 5 hours.
Prerequisite:** Mathematics 259 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 SEQ 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 SEQ C)
Lecture 5 hours.
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, Stoke's, 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.

291 Statistical Methods For Business And Economics (3) ΔUC:CSU
Lecture 3 hours.
***Prerequisite:** Mathematics 238 or 261.*
Basic concepts of probability theory are developed. The course then proceeds with a detailed study of commonly used statistical techniques with an emphasis on applications in business and economics. These techniques include estimation, hypothesis testing, regression analysis, and quality control.

185 Directed Study - Mathematics (1) †UC:CSU - RPT 2

285 Directed Study - Mathematics (2) †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.*

*Δ**UC Credit Limit:** Mathematics 227 and 291, Statistics 1 and 7, maximum one course.*

*†**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 nature and causes of weather phenomena including wind, clouds, rain, lightning, tornadoes and hurricanes, solar energy; composition of the atmosphere, causes of air pollution, weather modification, the impact of weather on the human environment, and introduction to climate.

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.

*†**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 or 6 and Chemistry 51 or Physiology 1 or 8 or equivalent with a grade of "C" or better.*
Presents fundamentals of microbiology. Includes history, survey of microbes, morphology, metabolism, genetics, sterilization and disinfection, as well as host-pathogen relationships and fundamentals of virology and immunology Laboratory techniques stress handling, isolating, staining, enumerating and identifying microbes. Students explore microbes in air, water, and food with particular emphasis on medical microbiology and the major etiological agents of disease.

20 General 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 or 6 and Chemistry 51 or Physiology 1 or 8 or equivalent with a grade of "C" or better.*
Presents Microbiology as an investigative discipline that deals with microbial ubiquity, morphology and ultrastructure, taxonomy, cultural requirements, metabolism, genetics and roles in the disease process. The regimen for the identification of unknown microorganisms, control, inhibition and killing of microbes through aseptic transfer, sterilization and chemotherapy, interactions of microbes with immune defense and roles of public health procedures in protecting human and animal populations from disease are also stressed.

**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

200 Digital Imaging (3)
Lecture 2 hours; Laboratory 2 hours.
***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.

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 18th 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 18th 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.
In this course the study of MIDI, computer and multi-track recording techniques culminate with the production of demo tapes. Also, the application of music acoustics to digital synthesis is taught.

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 hour
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
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.

241 Music Notation and Copying I (1) CSU
Lecture 1 hour.
Presents the principles and techniques of notating and copying music.

242 Music Notation and Copying II (1) CSU
Lecture 1 hour.
***Prerequisite:** Music 241 with a grade of "C" or better.*
Continuation of Music 241.

243 Music Notation and Copying III (1) CSU
Lecture 1 hour.
***Prerequisite:** Music 242 with a grade of "C" or better.*
Continuation of Music 242.

244 Music Notation and Copying IV (1) CSU
Lecture 1 hour.
***Prerequisite:** Music 243 with a grade of "C" or better.*
Continuation of Music 243.

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.*
Presents improvisational techniques, scale an chord structures related to jazz improvisation. Includes the application of information studies to standard jazz tunes.

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.*
Techniques introduced in Music 161 are applied to music production and recording skills. Signal processing, mixing, SMPTE time code, DAT and traditional reel-to-reel recording, as well as advanced synthesis techniques are taught.

299 Music Honors (1) †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 anthem-type 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.*
Offers practical experience in singing jazz, folk and rock music in small ensemble. Recording studio techniques will be explored.

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) 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) 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*
Offers practical experience playing in a large jazz band. The reading and rehearsing of standard musical arrangements will emphasize 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) †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

*† **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.*

Natural Resources Management

See course listings under **Plant Science** 900-999.

Numerical Control

See course listings under **Industrial Technology - Machine Shop/CNC**

Nursing

See **"Nursing: Associate in Arts Degree"** for General Education prerequisites, page 80.

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.

401 Client Care Seminar I (1) CSU
Lecture 1 hour.
***Prerequisite:** Current enrollment in the first semester of the Nursing Program.*
An elective, but strongly recommended instructor guided course. Emphasizes nursing process and Gordon's Functional Health Patterns to enhance planning of nursing care and performance of nursing skills. Selected client care experiences and nursing skills will be used.

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 BRN 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 5 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 BRN 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 BRN referral.*
Discusses concepts of Pediatric Nursing 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

417 Client Care Seminar IV (1) CSU
Lecture 1 hour.
***Prerequisite:** Concurrent enrollment in the fourth semester of the Nursing Program.*
An elective, but strongly recommended instructor guided course for senior nursing students. Uses tutorial study, independent learning, and nursing skills practice to provide enrichment in advanced clinical application of nursing process and Gordon's functional health patterns.

424 Client Care Seminar II (1) CSU
Lecture 1 hour.
***Prerequisite:** Concurrent enrollment in the second semester of the Nursing program.*
An elective but strongly recommended instructor guided course which emphasizes nursing process and Gordon's Functional Health Patterns to enhance planning of nursing care. Provides opportunities for client teaching in simulated role-playing experiences. Selected nursing skills practice will be provided.

441 History, Trends, and Issues of Nursing (1) CSU
Lecture 1 hour.
***Prerequisite:** Completion of the third semester of the Nursing Program.*
Examines current and relevant nursing issues within the context of historical development of organized nursing. Includes legal rights and 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.

444 Client Care Seminar III (1) CSU
Lecture 1 hour.
***Prerequisite:** Concurrent enrollment in the third semester of the Nursing Program.*
An elective, but strongly recommended instructor guided course to facilitate enrichment, tutorial study, the utilization of independent learning, and nursing skills practice.

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 sea floor, the chemical and physical properties of sea water, currents, tides, waves and their effects on marine organisms. Special reference will be made to the Southern California environment and problems of man and the sea.

2 Introduction to Marine Biology (3) *UC:CSU
Lecture 2 hours; laboratory 3 hours.
This course is designed to be taught at a marine biology field station and maximizes the opportunities afforded by field study. The lecture, laboratory and field study are integrated to examine the biology of marine plants and animals. Emphasis is placed on the interactions among species which determine their distributions and the organization of communities.

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.
Offers an opportunity to learn skills and techniques of the oceanographer through laboratory, beach and dockside field work, and work cruises aboard a research vessel. Includes the study of nautical charts, instrumentation, and oceanographic processes such as sedimentation, effects of winds, currents, tides, and determination of water quality. Students are required to attend three field trips.

12 Lectures in Marine Biology (3) *UC:CSU
Lecture 3 hours.
***Note:** Students interested in earning laboratory credit are encouraged to enroll concurrently in Oceanography 14.*
May be offered as an honors section.
Introduces students to the biology of the marine environment. Included is a survey of marine organisms examining their structure/morphology, feeding habits, reproduction, adaptations and ecology. Special emphasis is placed on the ecology/interrelationships of organisms in the marine environment including kelp forests, coral reefs, the deep sea, rocky intertidal zone and wetlands communities. Man's influence on the marine environment is explored by study of fisheries management, pollution issues and discussion of current events.

14 Marine Biology Laboratory (2) *UC:CSU
***Prerequisite:** Oceanography 12 or concurrent enrollment.*
May be offered as an honors section.
Introduces student to the intertidal and nearshore marine communities of southern California. The biology of marine plants and animals is examined with emphasis on morphology, classification and ecology of major groups. A strong field emphasis includes field studies of the rocky intertidal zone, marsh and mudflat wetlands and sandy beach communities. Students participate in cruises on a research vessel requiring "hands-on" participation in all aspects of oceanographic sampling. Oceanography 12 must be completed previously or taken concurrently.

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.

*†**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**

Personal Development

1 Introduction to College (1) (NDA) - RPT 1
Lecture 1 hour.
Provides students with important information about the College and its resources. Assists the student in educational planning and acquiring skills necessary for academic success such as time management, study skills, and other skills that are necessary for college survival.

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.

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.
Introduces the student to some of the traditional subjects and contemporary issues in philosophy; includes some of the approaches and terminology found in philosophical literature.

5 Critical Thinking and Composition (3) UC:CSU
Prerequisite: English 101 with a grade of "C" or better.
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 is the focus of this course, with an emphasis on close contextual analysis, argumentative/persuasive writing, and critical thinking skills.

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 the student to formal logic, describing various systems of symbolization, the logical concept of sentential connectives and quantifiers. Introduces the concept of deductive logic using various techniques of proof Uses techniques of translation and the application of formal logic to analysis of arguments and determination of validity.

12 History of Greek Philosophy (3) UC:CSU (CAN PHIL 8)
Lecture 3 hours.
May be offered as an honors section.
Introduces the student to most of the important philosophers of ancient Greece and Rome. Covers the development of western philosophy from the pre-Socratics through Plotinus, with special emphasis on Plato and Aristotle.

14 History of Modern European Philosophy (3) UC:CSU (CAN PHIL 10) (Philosophy 12+14 = CAN PHIL SEQ 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 Anglo-American 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 basic concepts of the philosophical systems originating in the civilizations of China, Japan, and India. Considers differences between Oriental and Occidental attitudes and concepts in relation to the impact of Western thought on current philosophy in the Orient.

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
This introductory class will discuss and critically evaluate: the meaning of art, the meaning of beauty, truth in art, creativity and art, and various philosophical theories regarding the nature of art.

41 Introduction to Philosophy and Literature (3) UC:CSU
Lecture 3 hours.
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
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

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.
***Prerequisite**: 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.

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) 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.

96 Combined Activities (1) *UC:CSU - RPT 3
Activity, 2 hours.

Principles, techniques, and practices of fundamental movements used in sports, rhythmic activities as swing and line dances, aquatics, gymnastics, and other conditioning activities as directed are included in this course. Offers opportunity to develop individual skills and rule knowledge in traditional games (may include badminton, paddle tennis, table tennis, deck tennis, archery, running, body conditioning and others as facilities permit.)

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
105	Diving Skills
121	Water Polo 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
206	Handball Skills
212	Tennis Skills
222	Racquetball Skills
225	Yoga Skills
228	Body Conditioning
229	Body Dynamics
230	Weight Training Skills
238	Self-Defense Skills
247	Gymnastics Skills
253	Wrestling Skills
256	Fencing Skills
259	Golf Skills
277	Snow Skiing Skills
289	Bowling 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
310	Flag/Touch Football Skills
313	Soccer Skills
322	Volleyball Skills
328	Softball Skills

Dance (1) UC:CSU - RPT 3
Activity, 2 hours.
These courses are also listed under Dance Activities.

Level 1-2-3-4 offered for all courses listed below, but all levels may not be taught each semester:

**401	International Folk Dance
**431	Modern Dance
**434	Ballet
**437	Jazz
*440	Social Dance
*446	Tap Dance

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) ***UC:CSU - RPT 3
Activity, 3 hours.
*****UC 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.

678 Softball (1) CSU - RPT 3
Activity, 3 hours.
This course is designed to cover the fundamentals of softball. It will include a review of the rules of the game along with basic offensive and defensive drills.

682 Tennis (1) UC:CSU - RPT 3
Activity 3 hours
This course offers instruction and practical application opportunity in the fundamental skills and techniques of beginning tennis.

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.

698 Fitness through Cross Country Conditioning (1) UC:CSU - RPT 3
Activity, 3 hours.
This course is designed for beginning and intermediate runners and is intended to provide focused strength and conditioning exercises, emphasize safety and injury prevention and present new rules and distance running techniques for Cross Country.

701 Advanced Lifesaving (2) UC:CSU
Lecture 1 hour; activity 2 hours.
***Note**: Students must be able to: 1. perform a standing front dive in reasonably good form, 2. swim 500 yards continuously, demonstrating some ability in using a front crawl stroke, a side stroke utilizing a scissor kick, and a stroke done for the back using an inverted scissors or inverted breast-stroke kick, 3. surface dive to minimum depth of 8.029 feet and swim 20.029 feet underwater and, 4. tread water one minute.*
Encompasses the knowledge and skills essential for personal safety in and on the water and includes training to assist or rescue a person in danger of drowning. Students satisfactorily completing this course will receive their Advanced Lifesaving Cards from the American National Red Cross. Written and practical examinations are given.

702 Water Safety Instruction (3) UC:CSU
Lecture 2 hours; plus 2 hours related swimming.
***Note**: A valid Advanced Lifesaving Certificate is required. This class meets the credit for Physical Education activity. A qualifying swimming test is required.*
This class grants the Red Cross Water Safety Instructor Certificate to students who successfully complete the requirements.

185 Directed Study - Physical Education (1) †UC:CSU - RPT 2

285 Directed Study - Physical Education (2) †UC: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.*
*†**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

1 Physical Science I (3) *UC:CSU
Lecture 3 hours.
Credit not given for both Physical Science 1 and Physics 12.
Surveys the field of physics stressing the historic development and applications to everyday life. Also includes a brief introduction to chemistry. Students who are interested in teaching are encouraged to enroll. A one unit laboratory, Physical Science 14, is available but not obligatory.

4 Physical Science & Laboratory (4) *UC:CSU
Lecture 3 hours; Laboratory 3 hours
Same as Physical Science 1 and 14 combined.
Surveys the field of physics stressing the historic development and the applications to everyday life. Also includes a brief introduction to chemistry. Students who are interested in teaching are encouraged to enroll. The laboratory component supplements the instruction.

5 Introduction to Air Pollution (3) UC:CSU
Lecture 3 hours.
Same as Environmental Science 9. Credit not given for both courses.
Introduces the student to the sources of air pollution and the technical problems of reducing air pollution. The course includes the physics of the atmosphere, the chemistry of air pollutants, analysis methods and possible methods of pollution control.

14 Physical Science Laboratory (1) *UC:CSU
Laboratory 3 hours.
***Prerequisite** or **Corequisite**: Physical Science 1.*
Provides laboratory experience supplementing the instruction given in Physical Science 1.

185 Directed Study - Physical Science (1) †UC:CSU - RPT 2

285 Directed Study - Physical Science (2) †UC:CSU

385 Directed Study - Physical Science (3) †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.
*† 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 6A (3 units) and 6B (1 unit)
***Prerequisite**: A course in Trigonometry with a grade of "C" or better.*
Considers the fundamental principles and applications of mechanics, heat, fluids, wave motion and sound.

7 General Physics II (4) *UC:CSU (CAN PHYS 4) (PHYSICS 6+7=CAN PHYS SEQ A)
Lecture 3 hours; laboratory 3 hours.
May be offered as modules 7A (3 units) and 7B (1 unit)
***Prerequisite**: Physics 6 with a grade of "C" or better.*
Continues Physics 6 into principles of electricity, optics, and modern 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 stressing the historic development and the application in today's culture. Students who are interested in teaching are encouraged to enroll. A one unit laboratory, Physical Science 14, 15 available but is not obligatory.

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, periodic 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.
***Prerequisite**: 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 SEQ B)
(Formerly Physics 39)
Lecture 3 hours; Laboratory 6 hours.
***Prerequisites**: Mathematics 263 and Physics 102.*
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.

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 SEQ B)
Lecture 3 hours; Laboratory 3 hours.
***Prerequisite**: Anatomy 1, or Agriculture 511 and 512, AND Biology 3 or 6 with a grade of "C" or better.*
Studies 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 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 SEQ 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

COURSES FORMERLY LISTED AS "AGRICULTURE"

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 their 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.

726 Agricultural Genetics (1) CSU
Lecture 1 hour.
Introduces the basics of plant and animal genetics. Discusses formations of hybrids and clones, gene interactions and utilizations of mutations. Prepares students for plant breeding and animal production.

727 Plant Breeding Techniques (1) CSU
Lecture 1 hour.
***Prerequisite**: Plant Science 711 or 726.*
Application of principles of plant improvement through selection, hybridization and utilization of hybrid vigor. Demonstrates breeding techniques necessary to hybridize plants.

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
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) ❖UC:CSU
Lecture 2 hours; Laboratory 4 hours.
***❖ 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) ❖UC:CSU - RPT 3
Lecture 2 hours; Laboratory 4 hours.
***Prerequisite**: Plant Science 806.*
***❖ 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 agro-ecosystems. 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) §UC:CSU
Lecture 3 hours.
§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.

902 Natural Resources Laboratory (2) *UC:CSU
**UC transferability pending approval.*
Lecture 1 hour; Laboratory 2 hours.
Covers basic skills related to natural resources. Includes resource data collection and measurements, land measurement and topographic maps. Field trips to local resource management agencies. Discussions of career areas.

905 Introduction to Outdoor Recreation (2) CSU
Lecture 2 hours.
Studies the development and management of rural and urban recreational enterprises. Includes a study of national and state parks, forests and historical sites. Covers practical recreational practices, including the development and operation of rural and urban picnic, swimming, boating, horseback riding, hunting preserves, and fishing waters.

910 Southern California State Parks (1) (CSU)
Laboratory 2 hours.
A field study class which will visit selected State Parks in Southern California. Park resources, aspects of resource management, recreational opportunities, and visitor interaction will be covered. Field tours will be with Park rangers or staff. Half or full day field tours.

912 Environmental Interpretation (1) CSU
Laboratory 2 hours.
A field study class which explores visitor information facilities at various local resource agencies. Focusing primarily on visitor center facilities, design, and layout, students will gain an appreciation of interpretation principles and strategies used to interpret natural history to the visitor. Half or full day field tours.

913 Environmental Restoration (1) CSU
Laboratory 2 hours.
A field study class which explores the emerging field of planning and constructing projects designed to repair or restore damaged or degraded parts of our ecosystem. Class will focus on Southern California examples. Half or full day field tours.

914 Endangered Species Management (1) CSU
Laboratory 2 hours.
A field study class which examines management strategies and projects designed to improve habitat for endangered species. Class will focus on local plant and animal species which have been listed as endangered by State and Federal agencies. Half or full day field tours.

915 Resource Management in Southern California (1) CSU
Laboratory 2 hours.
A field study class which will interact with various resource agencies in Southern California. Investigations into local resources and their management, as well as urban-rural interface issues will be highlighted. Students will compare and contrast management philosophies. Half or full day field tours.

940 Introduction to Forest Management (2) UC:CSU
Lecture 2 hours.
Presents the history of forestry and the lumber industry, the development of the profession, forest legislation, and the forest resources, its management and utilization. Studies the various disciplines and sciences involved in forest management, forestry as related to environment and society, and explores job opportunities.

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.

944 Global Forestry (2)
Lecture 2 hours.
Examines the world's forests, their extent, status, and values. Discusses the cultural and social values of forests, and their value in world economic development. Includes current issues of deforestation, global warming, and agroforestry. Covers career opportunities.

950 Introduction to Wildlife Management (2) CSU
Lecture 2 hours.
Presents the history of wildlife management and current wildlife problems, including the ecology of wildlife, migrational patterns, and population dynamics. Considers the emerging national interest in wildlife and reviews wildlife literature and careers.

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.

970 Range Management (3) CSU
Lecture 2 hours; Laboratory 2 hours.
Applies principles of range management to the utilization and conservation of land resources. Undertakes a study of range vegetation, soil conditions, and evaluation of livestock grazing problems and practices. Emphasizes California land conditions. Includes several field trips for observation work.

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.

911, 921, 971, 981
Cooperative Work Experience Education - Agriculture
See Cooperative Work Experience Education

Political Science

Also See Law 3

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.

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.
Introduces political and governmental patterns prevalent in the Middle East including the Maghrabi States, Turkey, Iran, and Israel. Special consideration given to the importance of Islam, the politics of oil, intra-area conflicts, American policy, relations between Middle Eastern states and the rest of the world.

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 policies which shape the various possibilities and strategies for women's political participation in the United States as well as other selected countries.

30 The Political Process (3) UC:CSU
Lecture 3 hours.
Surveys the nature, operation, and foundations of the democratic order with specific focus on elections, campaigning, political behavior, public opinion, political parties, and interest groups at the national and state levels in the United States.

185 Directed Study - Political Science (1) †UC:CSU - RPT 2

285 Directed Study - Political Science (2) †UC:CSU

385 Directed Study - Political Science (3) †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

*† **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

*†**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.
Surveys the fundamentals and principles of real estate, including such major topics as real estate practices, law, finance, appraisal, building and construction, investment and property management. Vocational opportunities in real estate are also discussed. This course is basic in terminology and principles to all other real estate courses, and qualifies the student to take the California Real Estate Sales Agent exam.

3 Real Estate Practices (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1.*
Covers the problems of establishing and operating a real estate brokerage business. Topics include establishing the office, securing listings and prospects, showing properties, closing sales, financing, property management, rentals and leases, appraising, and a survey of the California Real Estate Act. This course applies toward the mandatory requirement for the broker's license.

5 Legal Aspects of Real Estate I (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1 and 3; Business 5 is recommended.*
Covers principles of property ownership and management in their business aspects, with special references to the law of California as it applies to community property conveyances, deeds, trust deeds, mortgages, leases, brokerage, mechanics' liens, homesteads, wills and estates, and taxes. This course applies toward the mandatory requirement for the broker's license.

Cooperative Work Experience Education - Business
See Cooperative Work Experience Education.

Recreation

185 Directed Study - Recreation (1) CSU - RPT 2

385 Directed Study - Recreation (3) CSU
Conference 1 hour per unit
Allows students to pursue Directed Study in Recreation on a contract basis under the direction of a supervising instructor.

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 agencies. 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.

Sign Language

See course listing under **American Sign Language**

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.
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
Lecture 3 hours.
Offered in Fall semester only
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.

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) 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.

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. Students will be assigned ten hours per week of homework including one mandatory hour in the Learning Center (TLC 1613). All students must pass the required departmental Spanish exit exam to receive credit for the course.

2 Elementary Spanish II (5) UC:CSU (CAN SPAN 4) (SPANISH 1+2=CAN SPAN SEQ 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.

Upon entering this class student should be able to ask and answer questions in the present tense and understand and carry on simple conversations on familiar subjects. In this class students will learn to ask and answer questions in past tenses (including 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. Proficiency in listening, speaking, reading, writing, and the culture of Spanish-speaking countries is evaluated. Students will be assigned ten hours per week of homework including one mandatory hour in the Learning Center (TLC 1613). All students must pass the required departmental exit exam to receive credit for the course.

3 Intermediate Spanish I (5) UC:CSU (CAN SPAN 8)
Lecture 5 hours.
***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 Spanish grammatical constructions (past subjunctive, conditional, future, 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 topics. Proficiency in listening, speaking, reading, writing, and the culture of Spanish speaking countries is evaluated. This course is conducted primarily in Spanish. Students will be assigned ten hours per week of homework including one mandatory hour in the Learning Center (TLC 1613). All students must pass the departmental exit exam to receive credit for the course.

4 Intermediate Spanish II (5) UC:CSU (CAN SPAN 10) (SPANISH 3+4=CAN SPAN SEQ 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.*

This class emphasizes an in-depth review of basic communication skills as well as grammar, spelling, accents, sentence structure, paragraphs and essay writing. The student is introduced to elements of composition and critical reading of Latin American writers. Designed to assist students to make a successful transition to Spanish 5 or 6. Proficiency in listening, speaking, reading, writing and the culture of Spanish-speaking countries is evaluated. This course is conducted in Spanish. Recommended for native speakers of Spanish, international business majors, as well as Spanish majors. Students will be assigned ten hours per week of homework including one mandatory hour in the Learning Center (TLC 1613). All students must pass the departmental exit exam to receive credit for the course.

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.

Introduces the student to some of the important movements in Latin-American literature. Includes readings in prose and poetry from representative authors of Latin America and continues the study of advanced composition and grammar, through oral and written reports 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.

Introduces some of the important movements in Latin-American literature. Advanced readings in prose and poetry from representative authors of Latin America. Continues the study of advanced composition and grammar, oral and written reports.

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 history and an interpretation of the civilization of Spain 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.

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 the Spanish people presented through a survey of its literature, with selected readings of important writers in their historical setting, from The Cid through the 20th century.

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*
Lectures and discussions in English on the literature and history of Mexico during the twentieth century with a background of earlier works. Students will read translations of principal writers. This course is the same as Chicano Studies 42, Contemporary Mexican Literature, which is offered by other colleges in the Los Angeles Community College District.

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*
Introduces selected writings of Latin American authors such as Mariano Azuela, Juan Rulfo, Ricardo Guiraldes, Romulo Gallegos, Miguel Asturias, Augustin Yanez, Jose Ruben Romero, Gregono Lopez y Fuentes, Mario Vargas Llosa, Julio Cortazar, Manho Argueta, Jorge Icaza, Jose Donoso, Manuel Puig and others, with particular emphasis on contemporary writers and the "Boom Movement". All readings, lectures, and discussions will be in English.

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. All readings and discussions are in English. No knowledge of Spanish is required.

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 credit/no 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.

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*
Surveys the different literary movements and tendencies that have marked the evolution of Spanish American literature from the 1830s to the boom and beyond: Romanticism, Realism, Naturalism, Modernism, Criollismo, Cosmopolitanism, and Surealism. All readings, lecture, and discussions will be in English.

26 Understanding Latin America through Film (3) UC:CSU
Lecture 3 hours.
Humanities credit
Examines feature films as a communicative art form that offers a thematic approach to the understanding of the diverse multicultures of Latin America. The films analyzed reflect four basic themes: Tradition and Change, Cultural Contrasts, Human Rights, and Women and Society. All readings, lectures, and discussions are in English. No knowledge of Spanish is necessary.

27 Cultural Awareness Through Advanced Conversation (3) UC:CSU
Lecture 3 hours.
Humanities credit
***Prerequisite**: Spanish 3 with a grade of "C" or better.*
Develops oral facility and cultural awareness, emphasizing speaking and understanding Spanish in everyday situations common to Latin America. Good grasp of grammar is a prerequisite. Prepares student to live in a Spanish-speaking country.

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 conquestto modern Mexico, as revealed through the tales of its people, art, music and writings. All readings and discussions are in English. No knowledge of Spanish is required.

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) †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.

*† **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.

10 Basic Vocabulary for the Hearing Impaired I (3) (NDA) - RPT 3
Lecture 3 hours.
Normally offered in the Fall semester.
Provides the opportunity to learn essential words encountered in college reading. Applies the words in student-composed sentences. Compares and contrasts meanings in Ameslan with meanings in English. Develops spelling ability and emphasizes the habit of using the dictionary and other tools for building vocabulary.

11 Basic Vocabulary for the Hearing-Impaired II (3) (NDA) - RPT 3
Lecture 3 hours.
Normally offered in the Spring semester.
Continues vocabulary development of hearing-impaired students for the purpose of improving reading and writing skills.

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.

29 English for the Hearing Impaired Student (6) (NDA) - RPT 3
Lecture 6 hours.
Assists the student who is hearing impaired with upgrading English language skills on an individual basis. The course emphasizes vocabulary, reading and writing skills.

35 Computer-Assisted Vocabulary Development (1) (NDA) - RPT 3
Laboratory 2 hours.
Students will work directly under the supervision of an instructor, and work with Special Services microcomputers which will perform the instruction and testing of new vocabulary. Students can learn up to 2900 words.

49 Computer-Assisted Spelling Development (1) (NDA) - RPT 2
Laboratory 2 hours.
Students use a computer to learn, practice and be tested on up to 750 commonly misspelled words. All work is individualized, and students learn only those words that they do not know.

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.

Speech Communication

101 Oral Communication I (3) UC:CSU (CAN SPCH 4)
Lecture 3 hours.
***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 - RPT 2
Lecture 3 hours.
This course enables the student to apply speech communication skills to the business setting. Structured oral presentations are used to gain the skills required for business meetings, conferences, interviews and discussions.

104 Argumentation (3) UC:CSU (CAN SPCH 6)
Lecture 3 hours.
***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.
Provides speech experiences to develop awareness of correct vowel and consonant articulation through the use of phonetic practice. Covers vocabulary, phonetic and diacritical symbols, alphabet and the vocal mechanism.

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 students with foreign language backgrounds.

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

*† **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, non-parametric 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.*

Study Skills

See **Learning Skills, Personal Development and Psychology 26.**

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.

2 Basic Psychology for Supervisors (3) CSU
Lecture 3 hours.
Prerequisite: *Supervision 1.*
Teaches the basic principles of dealing with people in business and industry to assist the supervisor in understanding the people with whom he works. Emphasizes the psychological aspects of emotion, attitudes, perceptions, personalities, learning processes, motivation, and job adjustment.

6 Labor-Management Relations (3)
Lecture 3 hours.
Studies employer-employee relations in government and business. Includes the supervisor's responsibility for effective management-employee relations; historical background of unions and other employee groups; impact and effect of federal, state and local legislation on wages, hours, grievances, discipline and other working conditions; and employer and employee rights and obligations under a civil service system. Considers the role of employee organizations in government agencies versus private industry.

11 Oral Communications (3)
Lecture 3 hours.
Provides classroom practice to improve speaking skills necessary for management. Builds personal confidence. Develops poise, vocabulary, gestures and the ability to speak extemporaneously. Uses role playing to develop speaking skills in typical business situations. Promotes leadership characteristics, initiative and drive.

Technical Theater

342 Technical Stage Production (2) 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 of the 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.

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)
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.

342 Technical Stage Production (2) UC:CSU - RPT 3
Laboratory 6 hours.
Same as Technical Theater 342. Credit not given for both courses.
***Note**: Meets prerequisite for Theater 232 and 250.*
Provides work in all technical aspects of play production in terms of study and laboratory practice, including stage managing, lighting, scene construction, painting, designing, and use of stage equipment. Offers experience in stage crew and technical direction. Required of all first and second semester students.

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) †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

*†**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.*

Typewriting & Word Processing

See course listings under **Computer Applications** and **Office Technologies**

Welding

See course listings under **Industrial Technology - Welding**

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Obayani, Kambon (1991)
Professor of English
B.A., Brown University
M.F.A., University of Iowa

Oborn, Kathy (1994)
Assistant Professor of Administration of Justice
A.A., Los Angeles Pierce College
B.A., M.S., California State University, Northridge

O'Dea, Marcia C. (1991)
Professor of Modern Languages
B.A., California State University, Los Angeles
M.A., University of Notre Dame

O'Dea, Thomas F. (1985)
Professor of Modern Languages
A.B., M.A., University of Notre Dame
M.B.A., American Graduate School of International Management

Odello, Betty (1980)
Department Chair, Philosophy/Sociology
Professor of Philosophy
B.S.N., Creighton University
M.N., University of California, Los Angeles

Ogar, George W. (1989)
Professor of Chemistry
B.S., M.A., University of Lowell
Ph.D., Brown University

O'Hanlon, Lynne (1969)
Professor of Computer Science and Information Technology
Department Chair, Computer Science and Information Technology
B.A., M.A., California State University, Northridge

Oliver, Tim (1999)
Vice President, Administration
B.A., University of Southern California
M.B.A., California State University, Dominguez Hills

Oliver, Thomas W. (2000)
Acting President
A.S., Los Angeles Pierce College
B.S., California State University, Long Beach
M.B.A., California State University, Dominguez Hills
Ed.D. Pepperdine University

O'Neil, Robert B. (1989)
Professor of Journalism
Department Chair, Media Arts
B.A., Creighton University
M.A., Syracuse University

Ono, Robert K. (1981)
Professor of Chemistry
B.S., University of California, Los Angeles
M.S., California State University, Long Beach
Ph.D., University of California, Irvine

Oshima, David J. (1997)
Professor of Art
Department Chair, Art
B.F.A., Art Center College of Design
M.A., California State University, Northridge

Oxyzoglou, Alex (2002)
Assistant Professor of Chemistry
B.S., Reed College
Ph.D., University of Southern California

Pandey, Carol J. (1971)
Professor of Psychology
B.A., University of California, Los Angeles
M.A., Ph.D., University of Southern California

Partington, Alfred M. (1978)
Professor of Business Administration
B.B.A., University of Miami
C.P.A., Florida and California

Pawlicki, Michael J. (1976)
Professor of Music
B.A., State University of New York at Binghamton
M.A., University of California, Los Angeles

Penrod, Richard G. (1971)
Professor of History
B.A., M.A., Brigham Young University

Peterson, Lynne K. (1976)
Professor of Psychology
Department Chairperson, Psychology
B.A., M.A., California State University, Northridge
Ph.D., California Graduate Institute

Phoenix, David D. (1986)
Professor of Special Education
B.A., M.A., Ed.S., University of Nevada, Reno

Piazza, Stephen Paul (1978)
Professor of Music
Department Chair, Music
B.M., M.M., University of Southern California

Pregerson, Bernardine S. (1976)
Professor of Microbiology
B.A., University of California, Berkeley
M.S., California State University, Northridge

Putnam, Gene E. (1989)
Professor of Theater Arts
Department Chairperson, Theater Arts & Dance
B.A., California State University, Fullerton
M.E.D., Whittier College
M.F.A., California State University, Fullerton

Putnam, Thomas C. (1992)
Professor of Mathematics
B.S., M.A., Ph.D., University of California, Santa Barbara

Ramirez, Lucia (1984)
Professor of Counseling
A.A., Los Angeles City College
B.A., M.S., California State University, Los Angeles

Reiter, Kathleen L. (1975)
Professor of Child Development
Director, Campus Child Development Center
B.A., M.A., California State University, Northridge

Rikel, James E. (1977)
Professor of Life Science
Department Chair, Life Sciences
A.B., Whittier College
Ph.D., University of Southern California

Robin, Florence K. (1975)
Professor of Library Science
Department Chairperson, Library
B.A., University of California, Los Angeles
M.L.S., University of Southern California

Rooney, Colleen (1975)
Professor of Counseling
Director, Institutional Research
A.B., University of San Francisco
M.A., California State University, Northridge
Ph.D., The Union Institute

Rosdahl, Thomas (1986)
Professor of Industrial Technology
A.A., Los Angeles Pierce College
B.A., California State University, Los Angeles

Ross, Bernice L. (1986)
Professor of Psychology
B.A., M.A., University of California, Los Angeles
Ph.D., University of Southern California

Roth, Sheldon (1989)
Professor of Counseling
B.A., M.S., California State University, Los Angeles

Rowe, Bruce M. (1971)
Professor of Anthropology
B.A., M.A., University of California, Los Angeles

Rudin, Brenda (1995)
Associate Professor of Mathematics
B.A., Hunter College/City University of N.Y.
M.S., M.A., California State University, Northridge

Rupert, Dorothy W. (1994)
Acting Vice President, Academic Affairs
A.A., Los Angeles City College
B.A., University of California, Los Angeles
M.B.A., Pepperdine University

Russell, William H. (1984)
Professor of Geography
B.A., M.A., California State University, Northridge

Sanchez, Humberto (1996)
Associate Professor of Business Administration
B.S., Montana State University
M.B.A., University of La Verne

Schneider, Joan (1998)
Associate Professor of Nursing
A.D.N., Los Angeles Valley College
B.S.N., University of Phoenix
M.N., University of Phoenix

Schneider, John (1980)
Professor of Music
B.A., University of California, Santa Barbara
M.A., Ph.D., University of Wales, Cardiff
A.R.C.M., Royal College of Music, London

Schneider, Sandra (1991)
Professor of English
B.A., University of California, Irvine
M.A., Claremont Graduate School

Schutzer, David L. (1985)
Professor of Anthropology
A.A., Los Angeles Pierce College
B.A., California State University, Northridge
M.A., University of California, Los Angeles

Sears, Malcolm G. (1976)
Professor of Natural Resources Management
B.S., Humboldt State College

Shapiro, Leland S. (1976)
Professor of Animal Science
B.S., M.S., California Polytechnic State University, San Luis Obispo
Ph.D., Oregon State University
Licensed Pasteurizer, State of California
Registered Small Animal Dietitian

Sharpe, Kenneth J. (1984)
Professor of Electronics
Department Chairperson, Electronics
B.S., California State Polytechnic University, Pomona
M.A., California State University, Los Angeles

Sheff, Eileen T. (1979)
Professor of Counseling
Professor of Psychology
B.S., Ohio State University
M.S., California State University, Long Beach

Sheldon, Charles C. (1988)
Professor of English
B.A., University of California, Santa Barbara
M.Litt., University of Edinburgh, Scotland

Shepherd, Henny B. (1970)
Professor of Physical Education
B.A., California State University, Northridge
M.S., California State Polytechnic University, Pomona

Silverman, Norma (1982)
Teacher, Child Development Center
B.A., M.A., California State University, Northridge

Skidmore, Richard D. (1975)
Professor of Business
B.S., M.S., California Polytechnic State University, San Luis Obispo

Small, Laurence (1974)
Professor of Mathematics
B.A., University of California, Los Angeles
M.S., California State University, Northridge

Smetzer, Ronald D. (1981)
Professor of Industrial Technology
Director, Cooperative Education/Work Experience Program
A.A., A.S., Los Angeles Pierce College
B.A., University of State of New York
CMfgE (Certified Manufacturing Engineer), Society of Manufacturing Engineers

Solomon, Marcia S. (1976)
Professor of Nursing
Department Chairperson, Nursing
B.S.N., Fairleigh-Dickinson University
M.Ed., Johns Hopkins University
Ed.D., Nova Southeastern University
Diploma, Sinai School of Nursing, Baltimore

South, Richard W. (1976)
Professor of Horticulture
Department Chairperson, Agriculture and Natural Resources
B.S., Southern Illinois University
M.S., California Polytechnic State University, San Luis Obispo

Sparks, Donald M. (1989)
Professor of Physics
B.S., Humboldt State University
M.S., M.A., California State University, Northridge

Stein, Philip L. (1965)
Professor of Anthropology
Department Chair, Anthropological and Georgraphical Sciences
B.A., M.A., University of California, Los Angeles

Sutton, Daryl Lynn (1979)
Professor of Nursing
B.S., University of California, Los Angeles
M.S.N., University of California, San Francisco
Ed.D., Nova Southeastern University

Tabatabai, Zhila (2002)
Assistant Professor of Mathematics
B.E., Youngstown State University
M.S., University of Cincinnati
M.S., University of Arkansas

Taylor, Rowan S. (1964)
Professor of Music
A.B., M.A., Brigham Young University

Thomsen, Terry (1966)
Professor of Business Administration
B.S., Bradley University
M.B.A., University of California, Los Angeles

Thouin, Laurence G. Jr. (1982)
Professor of Biology
B.A., Occidental College
M.S., Ph.D., University of Southern California

Tishler, Roger (1984)
Professor of Mathematics
B.A., Boston University
M.S., Tulane University

Trivedi, Sunil (2001)
Assistant Professor of Computer Science and Informational Technology
B.S., B.A., University of Texas, Austin
M.S., Golden Gate University

Valdes, Lauren E. (2000)
Assistant Professor of Library Science
B.A., California State University, Long Beach
M.L.I.S., San Jose State University

van Tamelen-Hall, Victoria (1991)
Assistant Professor of Counseling
B.A., California State University, Northridge
M.Ed., Colorado State University

Villanueva, Donna-Mae (2000)
Dean, Academic Affairs
B.A., CUNY/Brooklyn College
M.A., New York University

Warren, James A. II (1970)
Professor of Music
B.A., University of California, Los Angeles
M.M., University of Southern California

Wechsler, Ronald (1978)
Professor of Animal Science
A.S., Los Angeles Pierce College
Class A Vocational Credential, University of California, Los Angeles

Weiser, Marian S. (1963)
Professor of Dance
B.S., University of Wyoming
M.A., Mills College

Wells, Raymond A. (1985)
Professor of Biology
B.A., M.S., California State University, Northridge
Ph.D., University of Southern California

Whalen, Paul L. (1985)
Dean, Academic Affairs
A.A., East Los Angeles College
B.A., California State University, Los Angeles
B.S., M.S., North Texas State University

White, Elizabeth G. (1982)
Professor of Veterinary Technology
A.S., Los Angeles Pierce College
A.H.T., State of California

Williams, Sheila M. (1990)
Professor of History
B.A., M.A., California State University, Northridge

Wittman, Darlene K. (1979)
Professor of America Sign Language/ Interpreter Education
B.A., M.A., California State University, Northridge

Yamada, Katsuya (1989)
Professor of Physics
B.S., Tokyo Denki Daigaku, Tokyo
M.S., Ph.D., University of Tennessee

Yoder, Kathie A. (1988)
Professor of Mathematics
B.A., Mount St. Mary's College
M.A., University of California, Santa Barbara
M.S., California State University, Northridge

Yoshiwara, Bruce W. (1989)
Professor of Mathematics
B.A., M.A., Ph.D., University of California, Los Angeles

Yoshiwara, Katherine (1980)
Professor of Mathematics
B.S., Michigan State University
M.A., University of California, Los Angeles

Zitzelberger, John F. (1987)
Professor of Electronics
A.S., Don Bosco Technical Institute
B.S., California State Polytechnic University, Pomona
M.S., California State University, Los Angeles

EMERITI

Adelson, Ben H.; 1965-1981;
Professor of Journalism

Alberti, Leo; 1956-1980;
Professor of Chemistry

Allocco, Brenda K.; 1986-2001
Professor of Nursing

Alvarez, E.C.; 1955-1983;
Professor of Computer Science

Anderson, Arthur J.; 1955-1980;
Professor of Business Administration

Anderson, Donald; 1962-1995;
Professor of Philosophy

Anderson, Ellen S.; 1965-1993;
Professor of Business

Anderson, Richard; 1964-2004
Professor of Counseling;
Professor of Psychology

Anderson, Roger; 1994-1995;
Professor of Mathematics

Andrino, Ruben D.; 1966-1993;
Professor of Modern Languages

Angier, Edwin; 1947-1955;
President of the College

Ater, Leroy Earl, Jr.; 1966-1989;
Professor of English

Baker, Robert S.; 1985-1995;
Professor of Theater Arts

Ball, Odis C.; 1975-1995;
Professor of Theater
Professor of Physical Education;

Bardeen, Jean Elizabeth; 1951-1975;
Professor of Physical Education;
Department Chairperson,
Physical Education /Women

Barlow, John D.; 1949-1984;
Professor of Animal Science

Basil, Kathleene L.; 1965-2001
Professor of Business
Department Chair, Office Administration

Baugh, Frank A.; 1961-1988;
Professor of Animal Science;
Assistant Dean, Academic Affairs

Baumgartner, Walter; 1966-1978;
Financial Aids Coordinator

Bayer, Diana E.; 1967-1984;
Professor of Special Reading/English

Bell, Michael R.; 1968-2004
Professor of Physical Education;
Department Chair, Physical Education Men's

Beller, Anthony; 1968-1998
Professor of Business Administration

Beyer, Frank; 1968-2002
Professor of English

Billings, Leona R.; 1971-1982;
Associate Professor of Philosophy/Sociology

Bird, Billy G.; 1968-1995;
Professor of Floral Design

Bishop, Raymond Thomas; 1957-1982;
Professor of Physical Education

Bixler, Margaret L.; 1979-1993
Teacher, Campus Child Development Center

Boggess, W. Lindsay; 1947-1982;
Professor of Animal Science

Boyd, Barbara J.; 1966-1973;
Assistant Professor of Physical Education

Boyd, John A.; 1966-1992;
Associate Professor of Physical Education

Bradley, Henry A. 1962-1997
Professor of Modern Languages

Bradley, Robert R.; 1969-1995;
Professor of Business Administration

Bravo, Edward; 1970-1991;
Professor of Physical Education

Briggs, Margaret; 1970-1981;
Lecturer in Chemistry

Brown, Roger A.; 1971-2004
Professor of Counseling

Bruce, Robert Nigel; 1961-1983;
Professor of English

Buquoi, Tyrus W.; 1966-1980;
Professor of Mathematics

Burry, James L.; 1988-2004
Professor of English

Cameron, Catherine M.; 1973-1994;
Professor of Nursing;
Acting Dean, Administration

Campbell, E. Dudley; 1975-1999
Professor of Psychology

Carico, Charles C.; 1963-1983;
Professor of Mathematics

Carrillo, A. Alexander; 1968-1989;
Professor of Art

Castellano, Rita; 1968-1995;
Professor of Anthropology

Cavenaugh, Jane T.; 1970-1982;
Professor of Psychology

Chambers, Ada E.; 1957-1974;
Professor of Philosophy

Chambers, James V.; 1968-1983;
Professor of English

Chambers, Robert D.; 1957-1989;
Professor of Physical Education

Chapman, Norman C.; 1957-1968; 1977-1982;
Professor of Music;
Dean of Instruction

Charland, Gustave M.; 1958-1972;
Professor of Foreign Languages

Chase, Robert; 1971-1985;
Dean of Academic Affairs

Chookolingo, Frank C.; 1959-1984;
Professor of Political Science

Christensen, Audrey; 1965-2001
Professor of Speech Communication

Christie, Evelyn G.;1965-1997
Professor of Chemistry

Clark, John Paul; 1955-1978;
Lecturer in Music

Clark, Marjory Q.; 1967-1983;
Professor of Business

Cluff, John M.; 1966-1989;
Professor of Political Science

Cobb, Charles M.; 1970-1983;
Professor of English

Cohen, Sylvia L.; 1965-1995;
Professor of Psychology

Corbeil, John W.; 1965-1992;
Professor of Art

Craig, Wesley V.; 1964-1976;
Associate Professor of Art

Crandall, James W.; 1965-1991;
Professor of Art

Crawford, Roger C.; 1971-1999
Professor of Physics

Curby, J. C. (Suzette); 1971-2001
Professor of Physical Education

de Champlon, John S.; 1965-1984;
Professor of Foreign Languages

DeLaney, Gertrude Anne; 1980-1997
Professor of Computer Science and
Information Technology

De Leon, Ralph; 1961-1986;
Professor of Physical Education

Delling, Leonard V.; 1974-1994;
Professor of Electronics

De Martin, Albert; 1963-1997
Professor of Electronics

Dengler, Ben; 1968-1993;
Professor of Architecture

Deonik, Walter A.; 1957-1988;
Associate Professor of Engineering

DesMarteau, Philip D.; 1976-92;
Professor of Animal Science

Deutsch, Joseph; 1957-1980;
Professor of Business

Dewey, John S.; 1966-1985;
Professor of Geography

Dixon, James; 1949-1982;
Professor of Horticulture;
Coordinator of Administrative Services

Dow, Eugene; 1957-1982;
Professor of Theater Arts

Drooyan, Irving; 1956-1983;
Professor of Mathematics

Drummond, Patricia A.; 1991-1995;
Professor of Counseling

Elman, Sidney H.; 1961-1995;
Professor of Political Science

Enger, Robert R. 1988-1996;
Assistant Professor of Business

Enkema, Patricia; 1967-1987;
Professor of Biology

Enzer, Shirley A.; 1976-1986;
Lecturer in Physical Education

Eskelin, Gerald Ray 1973-2001
Assistant Professor of Music

Farhood, John N.; 1986-1991;
Dean of Academic Affairs

Farr, Mary Jo; 1978-1995;
Professor of Music

Farrar, Ronald D.; 1968-1989;
Professor of Foreign Languages;
Department Chairperson, Foreign Languages

Feldman, Bernard; 1967-1983;
Professor of Mathematics

Fiorello, Geraldine Y.; 1961-1990;
Professor of Physical Education

Fisk, Richard; 1985-1995;
Professor of Music

FitzGerald, Richard E.; 1970-1995;
Professor of English

Fleming, Frank Jacob; 1957-1975;
Professor of Mathematics

Folsom, Hannah B.; 1965-1972;
Associate Professor of English

Foster, Harold; 1963-1984;
Professor of Psychology

Friedrich, Linda B.; 1987-1995;
Professor of Nursing

Furman, Mildred; 1971-1986;
Professor of Health Education

Gani, Scarlett; 1985-2003
Professor of Modern Languages

Gasper, Louis; 1963-1976;
Professor of Sociology;
Department Chairperson, Philosophy/ Sociology

Gazurian, Garo; 1971-1983;
Professor of Art

Gearing, Richard A.; 1970-1987;
Counselor

Gechtman, Murray; 1956-1989;
Lecturer in Mathematics;
Department Chairperson, Mathematics

Gelber, Martin B.; 1965-2003
Professor of Architecture

Gengerelli, Carmen N.; 1964-1978;
Associate Professor of Foreign Languages

Gerber, Myron; 1970-1995;
Professor of Physical Education

Gibson, Don W.; 1958-1972;
Associate Professor of Animal Science

Goldbloom, Erwin M.; 1965-1995;
Professor of Physical Education

Goldblum, Sheldon M.; 1970-1995;
Professor of History

Goodman, Florence J.; 1958-1978;
Professor of English

Gottlieb, Seymour; 1970-2003
Professor of Mathematics

Green, Gladys; 1964-1980;
Professor of English

Greer, Fontaine; 1989-2002
Professor of English

Guffey, Mary Ellen; 1975-1994;
Professor of Office Administration

Hadel, Walter H.; 1958-1976;
Assistant Dean of Admissions and Records

Hadley, Lindy Lou; 1964-1989;
Professor of Physical Education

Haffke, Elinor D.; 1975-1993;
Associate Professor of Nursing;
Professor of Counseling

Haight, Fletcher M.; 1957-1980;
Lecturer in Cooperative Education

Haile, Lynne H. (1968-1998)
Professor of Physical Education

Halby, William A.; 1966-1987;
Professor of Industrial Education;
Director, Cooperative Education

Hall, Fay K.; 1986-1989;
Professor of Nursing

Hankammer, Larry; 1968-1995;
Professor of Physical Education

Hardesty, James N.; 1965-1995;
Professor of Mathematics

Harris, Sigmund P.; 1966-1986;
Professor of Physics

Harwick, Betty C. B.; 1966-1995;
Professor of Sociology

Haskell, Barry S.; 1958-1999
Professor of Geology

Hawkins, Jane; 1968-1988;
Lecturer in Theater Arts

Hayworth, Edward; 1963-1993;
Professor ofBusiness Administration

Heckel, Russel H.; 1969-1995;
Professor of History

Hess, Jack D.; 1956-1985;
Professor of Foreign Languages;
Department Chairperson, Foreign Languages

Hoffmann, Edmund C.; 1970-1999
Professor of Computer Science and
Information Technology

Holiday, Jay E.; 1956-1964;
Assistant Professor of Psychology;
Department Chairman, Behavioral Science

Holloway, Mildred B.; 1969-1979;
Professor of Nursing;
Department Chairperson, Nursing

Hopkins, Keith E.; 1968-1994;
Professor of Physical Education

Hopkins, Robert C.; 1971-1982;
Professor of Computer Science

Hopper, Barbara K.; 1968-1982;
Professor of Biology

Hornung, Betsy; 1984-1985;
Associate Professor of Psychology

Horst, Donald P.; 1970-1988;
Professor of Theater

Horstein, Charlotte G.; 1986-1997
Professor of Nursing

Horton, Gwendolyn; 1973-1983;
Professor of Nursing

Hotop, Max; 1963-1989;
Assistant Professor of Physics; Counselor

Houghten, Sadako H.; 1966-1986;
Professor of Biology

Houston, Ann H.; 1969-1999
Professor of Biology
Department Chairperson, Life Science

Huber, William A.; 1965-1989;
Professor of Chemistry;
Department Co-Chairperson, Chemistry

Hubbell, John L.; 1965-1984;
Professor of Foreign Languages

Hume, Carlyle M.; 1975-2000
Department Chairperson, Music
Professor of Music

Hund, Edgar; 1972-1988;
Professor of Electronics

Hylton, Wallace; 1985-1989;
Professor of Art

James, Anna Gale; 1966-1999
Articulation Officer
Professor of Psychology

Jampol, Sylvia; 1968-1982;
Professor of Physiology

Johnson, James C.; 1970-1994;
Professor of Industrial Technology

Johnson, J. Thomas; 1972-2001
Professor of Philosophy

Johnson, Ray; 1964-1973;
Dean of Instruction

Jones, Collins E.; 1950-1976;
Professor of Physical Education

Jones, Harry; 1963-1994;
Professor of Electronics

Kalionzes, Carole S.; 1968-1995;
Professor of Library Science

Kamuk, John; 1985-1989;
Lecturer of Industrial Education

Karpel, Eli; 1958-1981;
Professor of Art

Kelliher, Maurice B.; 1956-1981;
Professor of Business Administration; Counselor

Kersey, Vierling, Jr.; 1947-1971;
Dean of Educational Services

Kharitonoff, Alexander G.; 1965-1986;
Professor of History

Khasigian, Amos; 1965-1983;
Professor of Economics

Kinchloe, Ralph; 1970-2001
Professor of Biology

Kiner, Nolan W.; 1950-1976;
Professor of Horticulture

Kistel, Paul D.; 1977-2004
Professor of English

Klass, Bernard M.; 1965-2001
Professor of History

Kleeb, Jane; 1963-1986;
Professor of English

Knapp, Kenneth; 1969-1986;
Professor of Vocational Education

Kohler, Max J.; 1948-1958;1971-1982;
Lecturer in Agriculture

Kostanick, Celeste B.; 1957-1983;
Professor of Geography

Kramer, G. Thomas; 1971-1999
Professor of Journalism

Kuczynski, John; 1968-2000
Professor of Art

Kuljian, Ernest S.; 1951-1984;
Professor of Chemistry

Lagerstrom, James; 1966-1997
Professor of Speech Communication
Department Chairperson, Speech Communication

Landau, William; 1966-1989;
Professor of English

Lange, Donna L.; 1975-2003
Professor of Physical Education/Health
Department Chair, Physical Education Women's

Lebow, Ruth; 1968-1984;
Professor of Oceanography

Lenier, Minnette G.; 1984-2001
Professor of English

Leventhal, Robert M.; 1963-1995;
Professor of History

Lewis, Henry E.; 1963-2003
Professor of Physical Education

Lewis, William E.; 1981-1984;
Dean, Student Services;
Associate Professor of Business Administration

Livezey, Jack; 1983-1995;
Associate Professor of Computer Science and
Information Technology

Lopez, Henry P.; 1966-1999
Professor of Modern Languages

Lord, Marjorie B.; 1951-1970;
Dean of Students

Loucks, Jean; 1971-1990;
Vice President, Academic Affairs

Luke, Roy; 1964-1995;
Professor of Mathematics

Maas, Evan; 1951-1975;
Dean of Student Personnel

MacMaster, Joan H.; 1969-1995;
Professor of History;
Department Chairperson, History/Humanities

Madden, William R.; 1959-1983;
Professor of Library Services

Majer, Lincoln; 1972-1975;
Lecturer in Vocational Education

Marrelli, Richard S.; 1975-1984;
Professor of Industrial Education

Madson, Derald L.; 1969-1995;
Professor of Biology

Martin, Marie; 1966-1970;
President of the College

Marton, Arnold; 1966-1983;
Professor of Speech

Mason, Joyce; 1967-1990;
Professor of Business

McCarty, Marcella A.; 1961-1981;
Professor of Health Services

McClatchey, William D.; 1986-1989;
Professor of Anthropology

McCrackin, Russell; 1963-1983;
Professor of Physics

McCurdy, Richard M.; 1966-1985;
Professor of Chemistry

McCutcheon, Thomas; 1983-1994;
Associate Professor of Mathematics

McHargue, Daniel S.; 2002-2003
Professor of History

McWilliams, Marian; 1958-1995;
Professor of Physical Education

Mead, Earl; 1966-1987;
Professor of Sociology;
Department Chairperson, Philosophy/Sociology

Means, Daniel G.; 1989-1991;
Professor of Educational Guidance;
President of the College

Mehlman, Mary R.; 1964-1995;
Professor of Mathematics

Meziere, Mary J.; 1965-1995;
Professor of English

Moore, Anna; 1957-1989;
Lecturer in Physical Education

Morosi, J. William; 1964-1980;
Dean of Administrative Services

Mozzer, Chester P.; 1962-1983;
Professor of Vocational Education

Muir, John K.; 1964-1989;
Lecturer in Physical Education

Mull, Charles H.; 1982-1998
Professor of Industrial Technology

Mundsack, Allan; 1995-2003
Professor of Mathematics

Munsey, Robert E., Jr.; 1965-1995;
Professor of Industrial Technology

Nabi, Hosni; 2001-2002
Professor of Biology

Nardin, Barbara; 1976-1988;
Associate Professor of Geology

Nicklin, John R.; 1970-1973;
Acting President of the College

Niles, Charles; 1964-1974;
Associate Professor of History

Nordberg, Paul C.; 1976-1999
Associate Professor of Art

Norman, Guinevere Guy; 1965-1986;
Professor of Sociology

Obrecht, Frederick P.; 1992-1995;
Professor of English

O'Connor, Robert; 1965-1994;
Professor of Health Education

Odegard, Patricia; 1979-1989;
Professor of Nursing

Oliver, Lois C.; 1964-1978;
Professor of Business;
Evening Department Chairperson,
Office Administration

Osborne, Philip R.; 1980-1999
Professor of Vocational Education
Director, Cooperative Education

Ott, Walter H.; 1947-1969;
Professor of Industrial Arts;
Department Chairperson, Technical/Industrial

Pacl, Rudolph S.; 1957-1976;
Associate Professor of Chemistry

Pam, Irene S.; 1974-1995;
Professor of Counseling

Paulman, Jack S.; 1967-1977;
Professor of Computer Science

Pence, Robert L.; 1969-1995;
Professor of Anthropology

Pendleton, James; 1970-1989;
Professor of Physical Education

Perry, Gerald E.; 1964-1995;
Professor of Physical Education
Department Co-Chairperson,
Physical Education-Men

Peterson, Philip E.; 1975-1994;
Professor of Mathematics

Phifer, Elaine E.; 1989-2002
Professor of Nursing

Pickard, Dean; 1983-2004
Professor of Philosophy/Humanities
Professor of Physical Education

Pill, Beatrice L.; 1955-1982;
Professor of Chemistry

Pinkston, Howell; 1970-2001
Professor of Art

Ponsor, Judith; 1980-2003
Professor of Nursing

Popkin, Himan A.; 1970-1982;
Professor of Industrial Education

Powell, Mark L.; 1967-1995;
Professor of Geography
Department Chairperson, Earth Science/Physics

Proffer, Estes E.; 1968-1982;
Professor of Business Administration

Raboy, Joseph; 1968-1989;
Professor of English

Raskin, Jerome E.; 1953-1988;
Professor of Physics

Ravetch, Herbert; 1958-1970;1978-1985;
President of the College;
Associate Professor of English

Raymund, Joan M.; 1970-1986;
Lecturer in English

Reid, Marion; 1978-1986;
Associate Professor of Industrial Education

Reidy, James B. Jr.; 1976-1989;
Professor of Computer Science;
Department Chairperson, Computer Science and
Information Technology

Renzi, Joseph; 1971-1983;
Professor of Vocational Education

Richards, James R.; 1986-1991;
Professor of Psychology

Richards, Malcom G.; 1964-1980;
Professor of Vocational Education

Rinnander, Elizabeth A.; 1981-2004
Associate Dean, Academic Affairs

Rogers, Ruby R.; 1970-1980;
Associate Professor of Nursing

Rosemark, Erika; 1974-1989;
Assistant Professor of Early Childhood Education
Director, Campus Children's Center

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

Rosenzweig, Aaron B.; 1961-1980;
Professor of Music

Ross, D. Lee; 1971-1986;
Dean, Academic Affairs

Rothe, Morris; 1957-1978;
Professor of Mathematics

Sanden, Bernyl J.; 1951-1983;
Professor of Animal Science

Santillanes, Vinona; 1974-1995;
Associate Professor of Special Education

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

Schruben, Francis W.; 1958-1989;
Professor of History

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

Seigel, David; 1976-1996
Professor of Business

Sherman, Arthur A.; 1984-2002
Professor of Computer Science and
Information Technology

Shaver, James R.; 1987-1995;
Professor of Sociology

Shaw, William L.; 1958-1995;
Professor of Electronics

Sheldon, M. Stephen; 1975-1983;
Coordinator, Institutional Research

Shocket, Sol; 1959-1992;
Professor of Economics

Siemens, David F., Jr.; 1966-1986;
Professor of Philosophy

Silver, Constance R.; 1969-1988;
Counselor

Silverstein, Paul; 1962-1991;
Professor of Psychology

Sirakides, Leo N.; 1973-1995;
Professor of Business

Siskin, Burton F.; 1986-1995;
Professor of Anthropology

Skovron, Alfred; 1977-1994;
Professor of Modern Languages

Slattery, Eugene R.; 1950-1993;
Professor of Mathematics

Smiljkovich, Ortrud; 1965-1977;
Assistant Professor of Foreign Languages

Smith, Donald A.; 1982-1992;
Professor of Business Administration

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

Stanley, Kenneth; 1966-2002
Professor of Physical Education

Sutherland, Miriam M.; 1976-1989;
Professor of Nursing

Thomas, Louise B.; 1975-2001
Professor of Nursing

Thompson, William L.; 1962-1991;
Professor of History

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 Noy, A. Henry; 1964-1993;
Professor of Business Administration

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

Ward, Benjamin B.; 1947-1972;
Professor of Horticulture

Whitman, Orene; 1972-1989;
Professor of Nursing

Wilcox, Robert G.; 1965-1983;
Professor of Sociology

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

Wooton, William; 1958-1972;
Associate Professor of Mathematics

Woods, Dorris S.; 1989-1995;
Associate Professor of Nursing

Wynns, John; 1957-1978;
Professor of Philosophy

Xanthos, Paul J.; 1965-1989;
Professor of Physical Education

Zappala, Robert R.; 1976-2002
Professor of Astronomy

Zeitlin, Herbert; 1980-1989;
Counselor;
Professor of Education

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 full-time 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 of 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 A, B, C, 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 CR.

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.

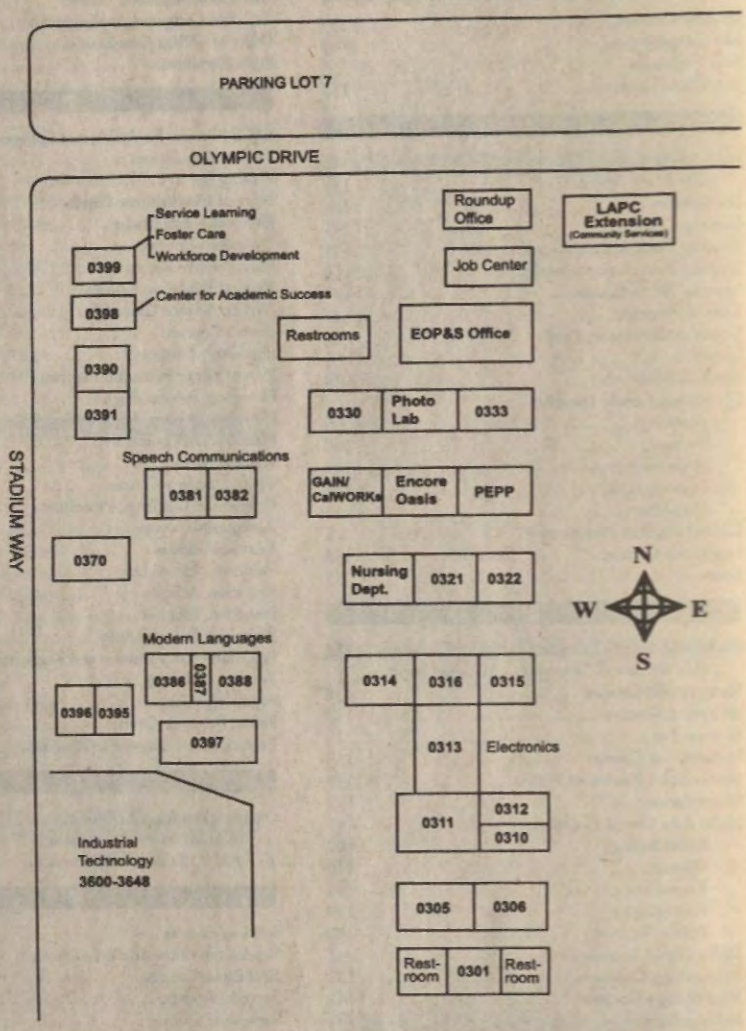
Withdrawal - The action a student takes in dropping all classes during any one semester and discontinuing coursework at the College.

Index

Campus Bungalow Map

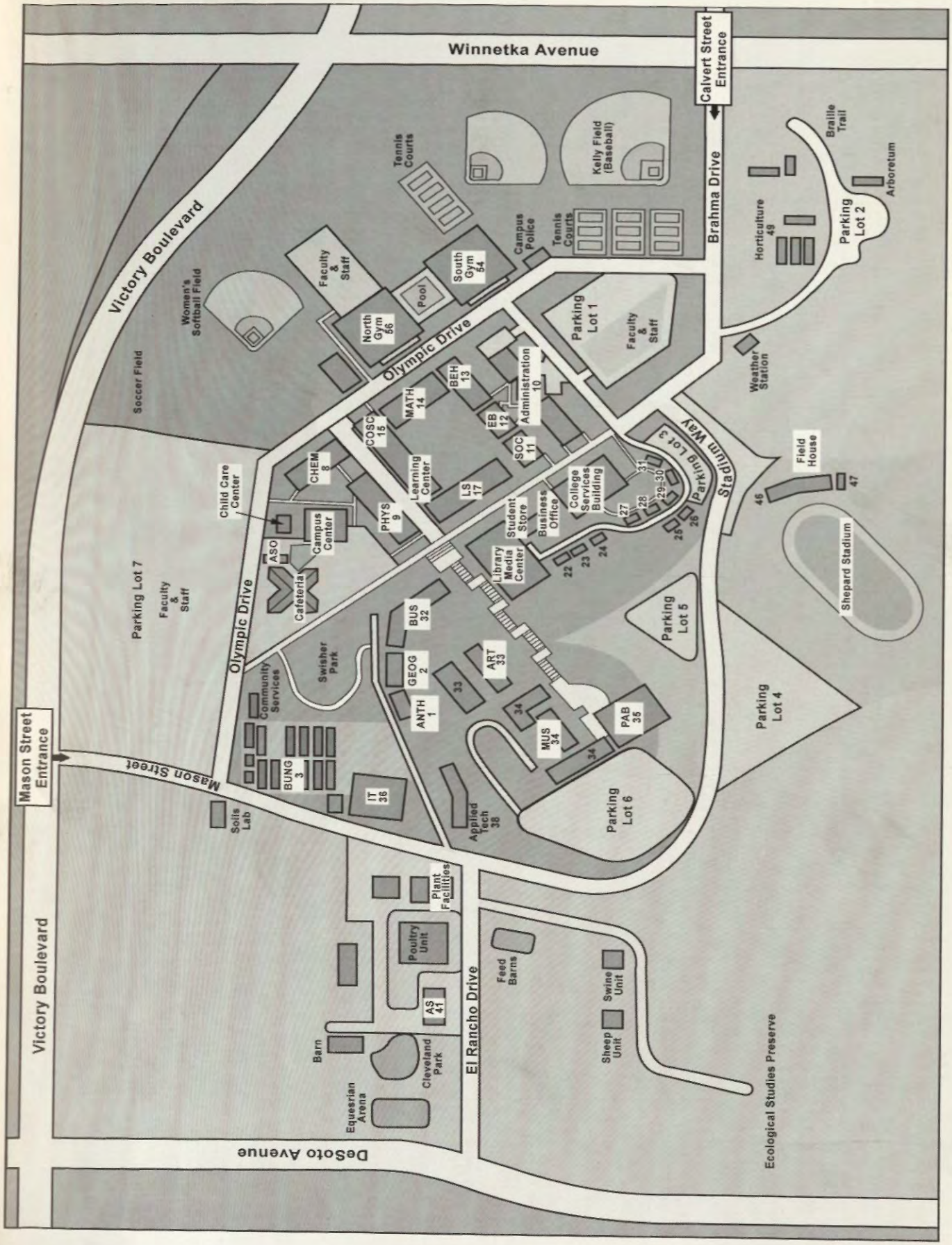
Building Abbreviations

ANTH ..... Anthropology
ARENA ..... Equestrian Arena
ART ..... Fine Arts
AS ..... Agricultural Science
AT ..... Applied Technology
BEH ..... Behavioral Science
BUNG ..... Bungalow
BUS ..... Business Administration
CDCNTR ..... Child Development Center
CHEM ..... Chemistry
COSC ..... Computer Science
EB ..... English
FIELD ..... Men's Gym Area
FLDH ..... Field House
FO ..... Faculty Office
GEOG ..... Geography
HORT ..... Horticulture
IT ..... Industrial Technology
LIB ..... Library
LOWERCTS ..... Tennis Courts (lower)
LS ..... Life Science
MATH ..... Mathematics
MUS ..... Music
NGYM ..... North Gym (Women's Gym)
OC ..... Off Campus
PAB ..... Performing Arts Building
PATIO ..... North Gym Patio
PHYS ..... Physics
SGYM ..... South Gym (Men's Gym)
SOC ..... Social Science
SOILLAB ..... Soils Lab
SPSERV ..... Special Services Office
STADIUM ..... Shepard Stadium
TLC ..... The Learning Center
UPPERCTS ..... Tennis Courts (upper)
WTAREAS ..... South Gym Weight Areas



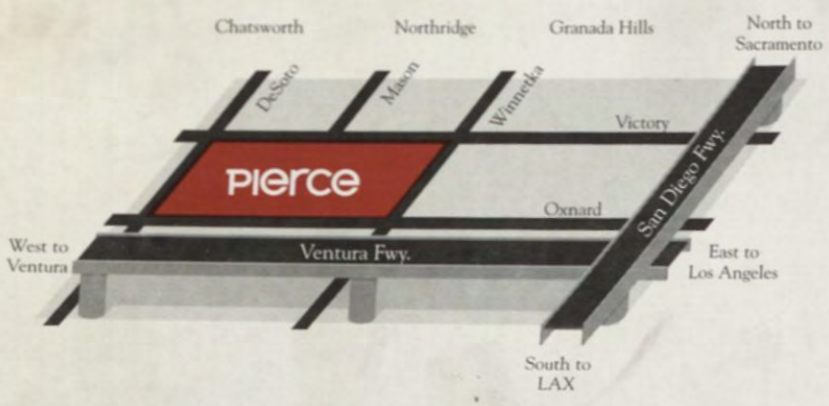
Los Angeles Pierce College Campus

6201 Winnetka Avenue, Woodland Hills (818) 347-0551



Pierce College

Los Angeles Pierce College
6201 Winnetka Avenue, Woodland Hills, California 91371
818.719.6404 http://www.piercecollege.edu



THE SMART CHOICE

Pierce